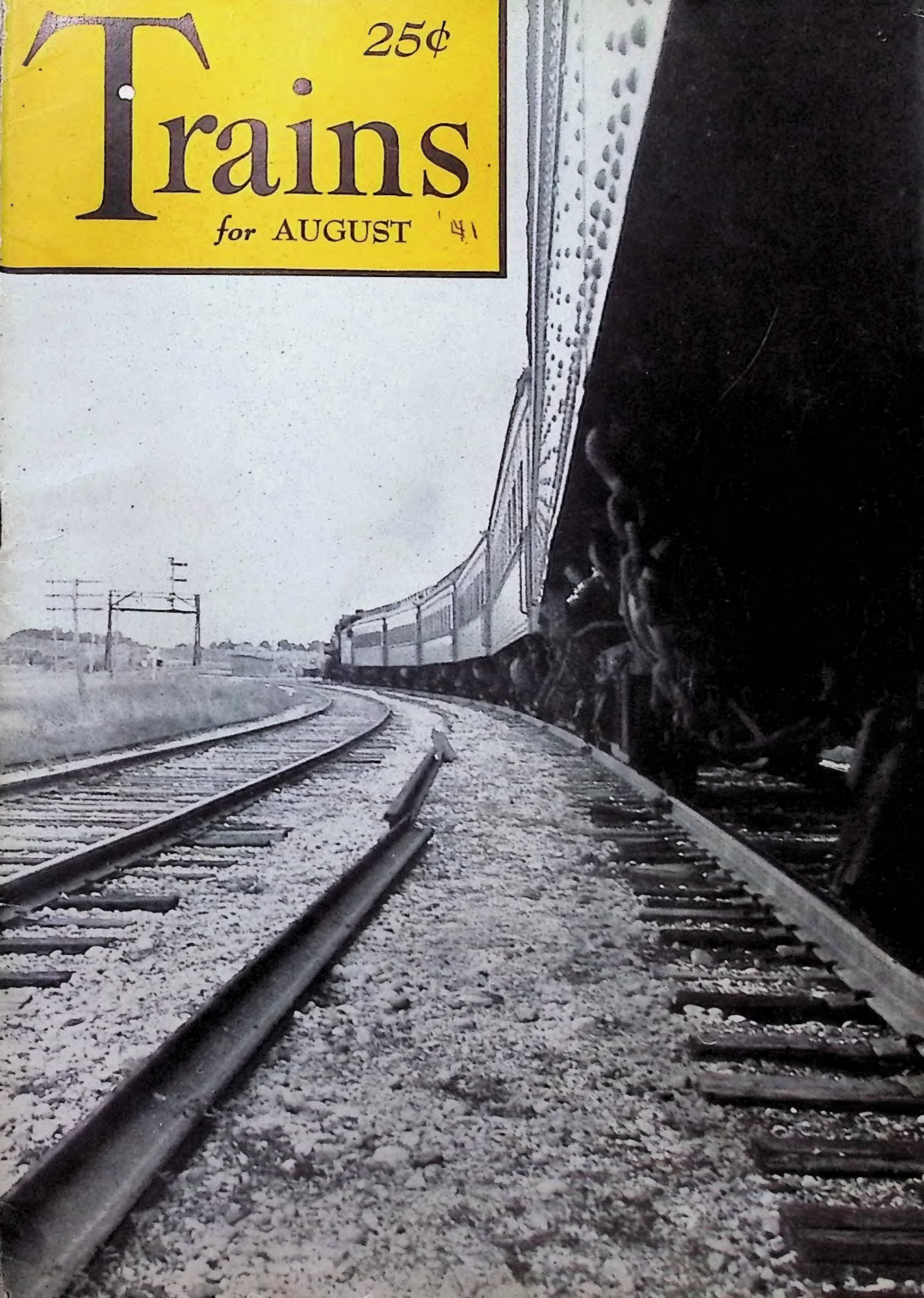
Trains

25¢

for AUGUST '41



Accelerating power—*Sunshine Special* in sunny Texas.

Although the Texas & Pacific runs from New Orleans to El Paso, much of the westward traffic originates at Texarkana, where through connection is made with friendly Missouri Pacific from St. Louis. This is the *Sunshine Special* West Texas-California section, leaving Ft. Worth headed by the only locomotive of its kind on the system, Class P-1r, built by Baldwin in 1919. Cylinders are 25" x 28", pressure 200 pounds, drivers 74", tractive effort 40,200 pounds, weight 275,080 pounds. Engines 701 to 713, built in the same year, are Class P-1 and P-1a, and have greater weight and power since the cylinders are an inch larger in diameter. T&P engines are easy to identify with their multiple insignia and the flared rim around the stack. There are two other *Sunshine Specials*, the South Texas-Mexico section and the North Texas section. This photo was taken by Lucius Beebe while scouting around for his next book, *Trains in Transition*. Beebe's *High Iron* and *Highliners* are best sellers, representing some of the finest in railroad photography.

Lucius Beebe.

Waybills

With a six-mile country walk thrown in for good measure one can have a good day of it on the East Broad Top narrow gauge railroad (see page 4 *et seq.*) and its neighbor, the Huntingdon & Broad Top Mountain. The map on page 7 shows how close together these two lines are at Broad Top City. Leave the Pennsylvania main line at Mount Union at 9:20 a. m. on EBT's No. 2. Ride to Robertsdale, arriving there at noon. After lunch walk northwest along the state road to Broad Top City, terminus of an H&BTM branch. Follow the branch down to Saxton, looking for the five switchbacks on the way, and at 5:17 board No. 3 at Saxton for the 24-mile ride back to the Pennsy main line at Huntingdon.

Pessimistic prognosticators who think of railroad freight traffic only in terms of cars and carloads like to foretell the breakdown of the railroads under strain of war traffic. We're all accustomed to thinking in terms of weekly carloadings, and we forget that cars are bigger and better now than in 1918 and the railroads use them more efficiently. It may surprise you, and it certainly will surprise the pessimistic prognosticators, to learn that the railroads are actually moving *right now* more than 25 per cent more ton-miles than in rushed 1918! And without fuss or fanfare, without a single authenticated instance of car shortage. Tell this to your friends who may be gloomy about the ability of the railroads to do their part in the present emergency.

A. C. K.

Trains

Editors: A. C. Kalmbach, Linn H. Westcott, Willard V. Anderson

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Cover photo by Linn H. Westcott; masthead photo, courtesy AT&SF, shows Santa Fe Diesel power.

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East Broad Top

★ Narrow gauge coal hauler is prosperous considering its size; it meets highway competition.

By William Moedinger Jr.

THE East Broad Top Railroad & Coal Company, despite its title, is a railroad and not a coal company. Coal traffic is 70 per cent of its bread and butter, and the Rockhill Coal & Iron Company owns a majority of the stock, but the East Broad Top is all railroad—narrow gauge railroad, heavy duty three-foot gauge track built and maintained to main line standards. The line provides general transportation between the East Broad Top coal field in south-central Pennsylvania and the Middle Division of the Pennsylvania Railroad at Mount Union, two-thirds of the way from Harrisburg to Altoona.

The East Broad Top is one of a class of railroads that is rapidly vanishing. Seventy years ago the narrow gauges received the final impetus that was to increase their number by 148 and enhance their mileage by 4000-odd miles within a decade.* East Broad Top stands today as the only survivor of three three-foot gauge railroads that served as feeders to the Middle Division of the Pennsylvania Railroad between Harrisburg and Mount Union. The other two, the Tuscarora Valley Railroad and the Newport & Sherman's Valley Railroad, joined the roster of memory lines during the thirties. More than that, East Broad Top stands today as the only really active narrow gauge railroad in the state of Pennsylvania. And above all, East Broad Top possesses the finest narrow gauge roadbed and track in the United States, freight rolling stock equal in construction and appearance to that of any standard gauge railroad, and motive power, while not the heaviest or most powerful, equal in every other respect to that of any narrow gauge railroad in this country.

The question had been asked many times why East Broad Top was built as a narrow gauge railroad when the Pennsylvania Railroad, with which it was built to connect, was always standard gauge. Company records do not answer this question. The only reference to the matter is a short resolution in the minutes of a special meeting of the board of directors held June 6, 1872, which reads, "Resolved, that the gauge of this railroad be fixed at three feet." C. D. Jones, operating vice-president of the East Broad Top Railroad, refers to the narrow gauge matter as "a mystery and an unsolved secret of the distant past." However, it is reasonable to suppose that had the railroad been built in the late fifties or in the early sixties the gauge would have been standard. When construction was commenced in 1873, the "narrow gauge fever" was well in progress and, being a mountain railroad, it is quite possible that the organizers of the East Broad Top were impressed with and influenced by the tremendous swing to the three-foot gauge during the 10 years of the seventies.

It is interesting to note that officials of the railroad in the years gone by have given very serious consideration to widening the track. However, the idea of making East Broad Top a standard gauge railroad was discarded a few years ago because the conversion would be an exceedingly costly proposition; it would require a great deal of new capital and would not increase revenue.

East Broad Top also operates as a standard gauge railroad in the Mount Union area. A mile or so southeast of Mount Union along the main line there is a large coal grading and cleaning plant. The third rail has been laid on nearly all of the tracks in this area, and EBT purchased two 0-6-0 yard goats for use on these tracks. Since nearly all of the coal brought down from the mines is consigned to foreign roads, there is necessarily a large number of standard gauge hopper cars to be shifted and loaded, and the standard gauge shifters are better able to handle these larger

* Transcontinental systems in three-foot gauge sold stock; many thought the standard gauge lines would change to narrow gauge.

William Moedinger Jr., 23 E. Vine St., Lancaster, Pa

Bucking the grade with a train of empties.

No. 2, the morning mixed train from Mount Union to Woodvale, assaults the steepest grade on the East Broad Top's main line, just north of Tunnel No. 1. While grades on the EBT are by no means steep for a narrow gauge railroad, the locomotives have 48″ drivers, 4″ larger than those of any narrow gauge locomotive on the Denver & Rio Grande. This is the train you'll most likely ride if you make a one-day round trip over the East Broad Top. The combination coach and baggage car is coupled at the rear of the train of empty hopper cars. When the mines aren't working, a gas-electric coach fills this schedule.

hopper cars, especially when they are loaded. All coal mined on the EBT is hauled as far as this coal plant in narrow gauge hopper cars. Here the coal is unloaded and sent through the coal plant. When it comes out, that consigned to foreign roads is loaded into standard gauge cars, while that consigned to industries along the EBT is reloaded into narrow gauge hoppers.

East Broad Top is a typical mountain railroad and is not without a past marked with a few hair-raising experiences common only to railroads operating in rugged country. Mr. Jones tells of an incident that happened in Robertsdale several years ago. Robertsdale is situated almost on top of Broad Top Mountain, 1800 feet above sea level. The early morning mail train was on a siding there waiting for a meet with two trains. The first one was a train of empty hopper cars followed by a passenger train 10 minutes behind it, filled with some 200 miners. The freight came rolling through Robertsdale right on schedule, and, as was the custom, a few hundred yards after passing the passenger train, the caboose was uncoupled and allowed to coast back on to a safety track without stopping the freight on the upgrade, for the train of empties was bound for Alvan, three miles farther south. On this particular day, however, someone forgot to set the switch to the safety track and when the caboose was uncoupled it rolled right on down the main line past the passenger train in the siding. The crew in the engine of the morning mail realized exactly what had happened when they saw the caboose coast merrily by them headed for a cornfield meet with the approaching train of miners. The crew lost not a minute uncoupling the engine from its train and getting out on the main line to chase and overtake the runaway caboose.

There is an eight-mile downhill grade north from Robertsdale. The brakeman rode the pilot of the pursuing engine, holding on with one hand and reaching for the hand rail of the caboose with the other. Already the exhaust of the oncoming passenger train was audible, but every man stuck to his post. Closer the outstretched brakeman's hand came to the caboose. Finally it was close enough to grasp the hand rail of the lurching crummy; the man on the pilot pulled himself to the platform, set the hand brakes, and brought the car to a stop just in time to flag the approaching train. Mr. Jones adds, "It is too bad there wasn't a motion picture camera as part of the standard locomotive equipment in those days to record this event, for I am sure that the films could have been sold to Hollywood."

The story of the East Broad Top had its beginning 94 years ago, when the Pennsylvania Railroad began to build its line between Harrisburg and Pittsburgh. The route selected was not a direct one because of the mountains between the two cities. Instead the railroad followed the route of the state-owned canals and the Juniata River, which provided a water level route far into the mountains. A straight line route would have required several bores under the same mountain ranges through which Vanderbilt later tunneled for his South Penn Railroad.* Fifteen or 20 miles to the south of the newly constructed line were the Broad Top coal fields, and it was for this reason that in 1853 and 1854 the Huntington & Broad Top Mountain Railroad was constructed to haul coal to the railroad and the canal along the Juniata River.

And so it was in 1855 when a group of retired Philadelphia business men boarded the train in that city and journeyed to Huntingdon, 97 miles west of Harrisburg, where they transferred to the Huntingdon & Broad Top Mountain Railroad for the last leg of their trip to the mountain, then a wilderness resort and a huntsman's paradise. The group was enjoying a vacation and had established headquarters in Broad Top City. In the course of their wanderings over the famous Broad Top Mountain, they accidentally stumbled across some new and undiscovered outcroppings of coal on the east side. That was the beginning of the East Broad Top coal fields.

In April of the following year, by means of a special act of the Legislature, these same gentlemen formed a new corporation having the authority to operate either a railroad, a coal mining company, or both. These men realized that the railroad was the important thing, a railroad that would carry the coal from the newly discovered field to the Juniata River, where transportation to the growing industrial East was provided by both railroad and canal. They reasoned that mining and the development of the new field would come automatically with the railroad. No construction was undertaken until 1873, for there was

* Never completed, the South Penn roadbed is now the new toll super-highway across Pennsylvania.

Linn H. Westcott.

East Broad Top follows the folds of the mountains.

The mountain ridges in Pennsylvania run roughly northeast and southwest. The Pennsylvania Railroad's main line must cut across these folds of earth and coal, but branches and short lines follow the northeast-southwest valleys with occasional windings and switchbacks up to the crests. See how East Broad Top hairpins over two ridges to reach the rich coal deposits near its south end. Huntingdon & Broad Top Mountain follows the same plan, approaching the Broad Top coal from the west with many switchbacks.

considerable controversy as to just where to join with the Pennsylvania Railroad and with the canal. There were two routes available. The more direct route would join the Juniata River at Mapleton, 88 miles west of Harrisburg. The other would join the Juniata at Mount Union, 85 miles west of Harrisburg. From an operating standpoint, the Mapleton route was far superior, for it was 10 or 12 miles shorter with easier grades and curves. The Mount Union route was chosen, however, because of the iron ore mines and pig iron blast furnaces in the Orbisonia district on the way. On October 15, 1874, the narrow gauge

William Moedinger Jr.

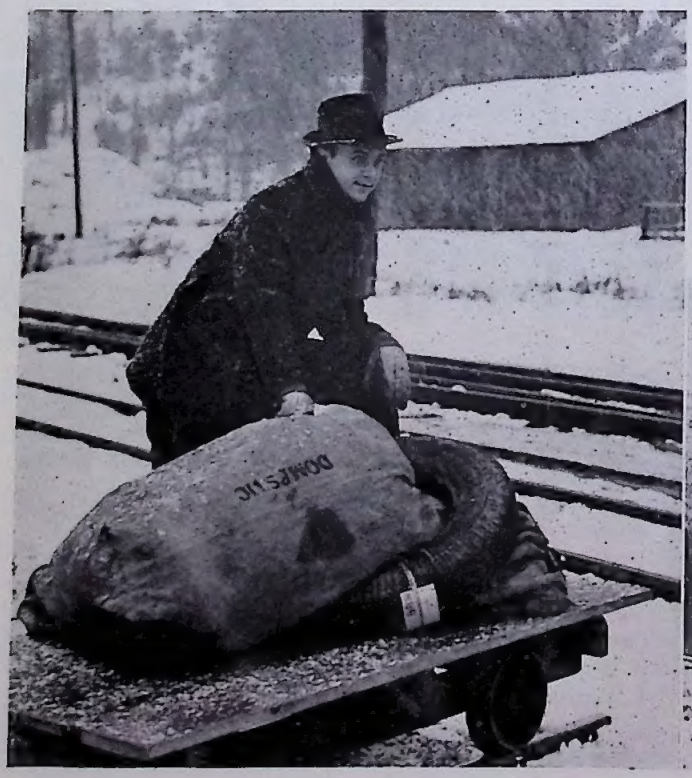
Since East Broad Top mixed trains use combine cars on the rear, the three cabooses travel only on the rear of extra freight trains. Notice well proportioned appearance.

Nos. 16, 17, and 18 are the road's three heaviest Mikados. This class exerts 3060 pounds more tractive effort than the D&RGW's famous narrow gauge 470 series Mikados.

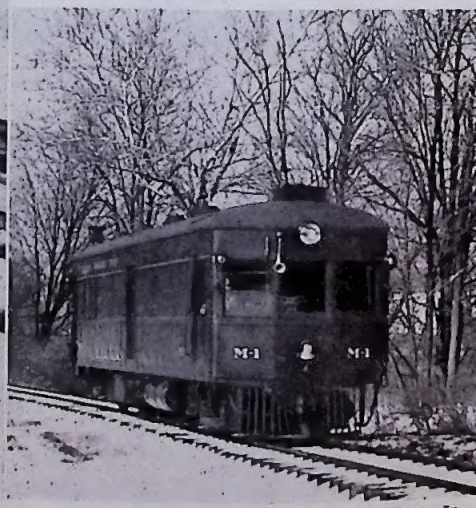
railroad was opened and operated between Mount Union and Robertsdale, a distance of 30 miles. A country about to celebrate its 100th anniversary could, for the first time, purchase the high grade semi-bituminous coal from the East Broad Top coal field.

East Broad Top locomotive No. 1 was a wood-burner, and Mr. Megahan, who fired this first locomotive, is still living.

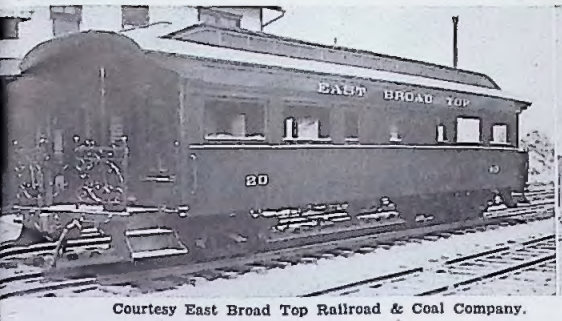
The men who founded East Broad Top and those who later carried on their work seemed to have but one purpose in mind, that of transporting coal from the coal fields to the canal in earlier days and to the railroad later on. The entire history of East Broad Top reflects the workings of a cautious and conservative group who realized that this railroad could become a prosperous one if its activities were confined to the original objectives of the founders. In the hands of many a railroad promoter of the 1870's, East Broad Top would have been given some grandiose name based on uncontrolled visions of expansion. It might very easily have become the Denver, South Park & Pacific Railroad of Pennsylvania with nothing more to show today.



Robertsdale station agent R. D. Potts is one of the youngest employees. He waits here with mail for No. 3. Gas-electric car M-1 substitutes for the mixed trains when mines are closed, and can pull trailer or box cars.



William Moedinger Jr.



Courtesy East Broad Top Railroad & Coal Company.

Some 40 years ago this was President Grover Cleveland's private car for fishing trips. It was sold to the EBT by a used equipment dealer, and it serves now as official car.

William Moedinger Jr.

Mikado No. 15 is one of two similar engines, the other being No. 14. Like all EBT motive power she is Baldwin-built. EBT has six narrow gauge Mikados, one Prairie.

In spite of its name, the East Broad Top Railroad & Coal Company has never concerned itself with the mining business. The operators chose to exert all of their energy on the task of efficiently operating their railroad. While the transporting of coal was always a primary objective, the first 10 years of the road found the general freight and passenger business the important items. By 1885 the railroad owned seven locomotives, six passenger cars, and some 250 freight cars, of which only 40 were coal cars.

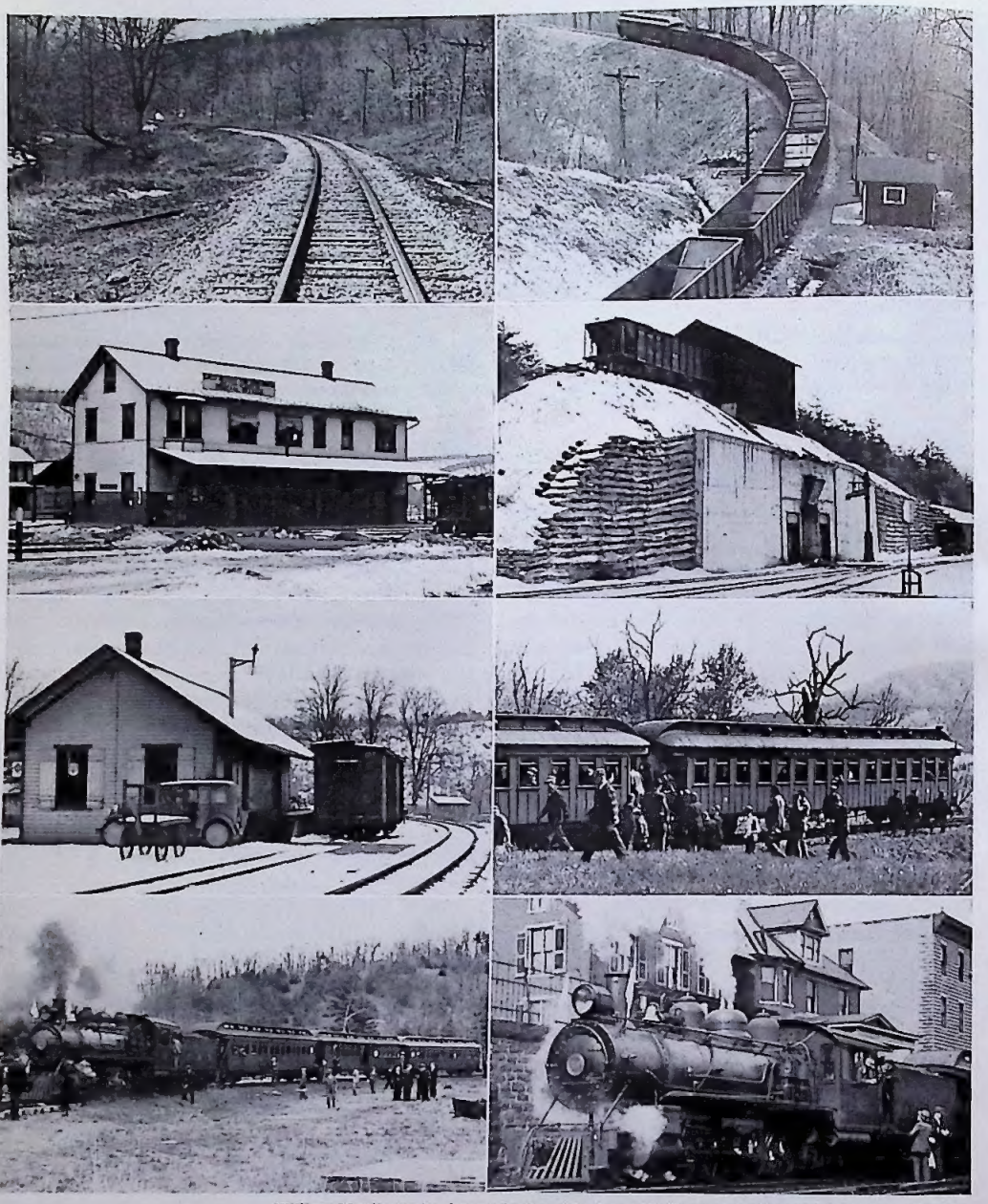
And about the same year East Broad Top began to grow, slowly but surely. In 1885 a new railroad was opened with EBT as its only physical connection; it was the narrow gauge Shade Gap Railroad, which joined the EBT at Rockhill Furnace and extended at first as far as Shade Gap, later to the ore mines at Nancy, some 11 miles from Rockhill Furnace. The new railroad was immediately leased by the EBT. In the next few years the main line was extended to Woodvale, and finally to Alvan, the present terminus. Another new branch, the Booher Branch, was built, extending in an easterly direction some 2½ miles from Jordan Junction, where it joined the main line.

On May 1, 1908, another new railroad was opened to serve as a feeder to EBT. It was the Rocky Ridge Railroad, extending from Rocky

Rocky Ridge is reached only by East Broad Top rails. Railfan excursion train is shown standing at the station (behind second coach). The Rocky Ridge Branch joins the main line just behind the camera and once formed a wye with the main. It follows the creek to the left.

Fan trip special does an act: After allowing the fans to get off, the train backed into Tunnel No. 2 (1150 feet long) and emerged to the accompaniment of clicking cameras. The sponsoring National Railway Historical Society estimated 3500 to 4000 pictures were taken on the one trip.

William Moedinger Jr.



William Moedinger Jr. (except bottom left, James P. Shuman; bottom right, Leon R. Franks).

Track is slag ballasted, well alined. Near Mount Union appearance surpasses even that in top photo.

Train (top photo) on one of two sharpest curves of the line, 17 degrees. Shanty is for tunnel watchman.

General office building is at Rock Hill Furnace. First floor houses station for adjacent Orbisonia.

Orbisonia coaling station is simply and substantially built, using a fill to elevate cars above tenders.

Winter means coal, and coal means revenue for EBT. The wintry station scene is at Three Springs, Pa.

East Broad Top owns 10 coaches and four combines. No. 8 (right, second photo up) has roller bearings.

First fan trip excursion over EBT was May 3, 1936. Coaches are former Boston, Revere Beach & Lynn.

No. 12 (bottom, right) is the smallest of East Broad Top's six Mikados, and the only one of its class.

Ridge, a station on the EBT, to Evanston, a distance of nearly five miles. The Rocky Ridge was immediately leased by the EBT. Also in these first few years of the new century additional spurs were constructed. One was the Coles Valley Branch, extending from Coles to Joller, 2.3 miles. Then there was a short branch built east from the main line just south of Shirleysburg. In these same years the Shade Gap Railroad extended its line southeast from Shade Gap to Neelyton, later on to Stanton, approximately six miles from Shade Gap. And in 1916 the last track was constructed on East Broad Top.

On December 22, 1913, the Shade Gap and the Rocky Ridge merged with the East Broad Top. One became the Shade Gap Branch while the other became the Rocky Ridge Branch. Neither road owned equipment, so it was perfectly in order that both should become part of the railroad on which they depended for their very existence.

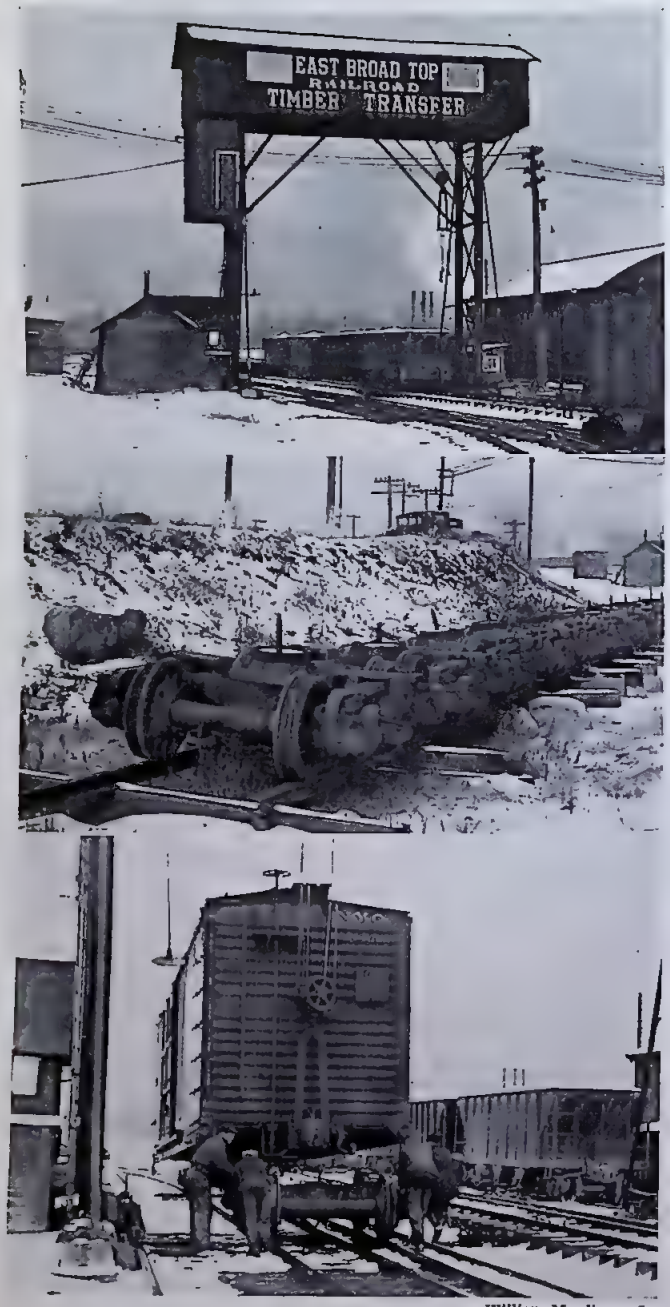
At the end of 1916 East Broad Top consisted of approximately 53 miles of railroad. Yard tracks, sidings, etc., accounted for another 20 miles, bringing the total EBT track mileage to 73. At this time records indicate that East Broad Top served six separate coal mines, three rock quarries, three large silica brick plants, and a number of smaller industries, as well as a general merchandise and passenger traffic at eight small towns.

East Broad Top is essentially the same as it was 20 years ago except, of course, for improvements. There is the 33-mile main line between Mount Union and Alvan to which all the other spurs and branches come as feeders. The Shade Gap Branch now terminates at Neelyton, some 10 miles southeast of Rockhill Furnace, the junction with the main line. That part of the original Shade Gap Railroad extending northeast from Shade Gap to Nancy was abandoned and dismantled. The Rocky Ridge Branch, which originally extended north from the main line to Evanston, lost a substantial part of its mileage in the Spring of 1936 when a torrential mountain stream severely damaged a bridge. When the flood occurred, it happened that there were several freight cars marooned at the northern end of the line. EBT repaired the bridge sufficiently to tow these cars across, whereupon the isolated section of track was torn up. Then there is the Coles Valley Branch, extending slightly over two miles to Joller. There is also a spur or two at the extreme southern end of the main line extending into the various coal mines in this district. Both the Booher Branch and the short spur just south of Shirleysburg have been abandoned and dismantled. Total route mileage comes to about 50 miles.

East Broad Top is one of a very few short line railroads still operating passenger trains. If you will look at the *Official Guide* you will find the timetable calls for seven daily-except-Sunday passenger trains. Four of these trains provide two round trips between Mount Union and Woodvale, a distance of 32 miles. The timetable also lists trains Nos. 7 and 8 between Orbisonia and Alvan and train No. 5 from Woodvale to Robertsdale in the evening. If you should plan a trip to East Broad Top, do not count on trains Nos. 7 and 8 to provide you with transportation. They are miners' trains and operate only when the coal mines are working. Whenever the mines are not operating, these two trains are annulled. During the Winter months, from November to April, they operate fairly consistently Monday to Friday inclusive. During the Summer months and on Saturdays the year around they operate irregularly.

Except for the miners hauled on Nos. 7 and 8, passenger traffic is insignificant. East Broad Top became well aware of this back in 1926, when a gas-electric unit was put into service. *M-1,* as it is designated, operates only when the coal mines are closed. When the mines are open and on occasional other days, EBT operates the coal trains as mixed trains so as to coincide with passenger schedules. On these days, one of the ancient wooden open-platform combine cars is coupled to the rear of 18 or 20 steel hopper cars.

Ordinarily mixed train service is not too desirable (except for railroad fans, of course), but mixed train service on the EBT usually lacks the annoyances common to this type of service. In the case of EBT there is very little setting out or picking up of freight cars en route. Southbound the train picks up the empty hoppers just south of Mount Union, and these cars are consigned to one of the mines in the Robertsdale, Woodvale, or Alvan districts, which for all practical purposes is the end of the line. Northbound the same holds true, except that hopper cars are loaded with coal. Ordinarily the only stops are at passenger stations. Between stations the 80-ton Mikado wheels the train along at a pas-



William Moedinger Jr.

Standard gauge cars on narrow gauge track.

East Broad Top uses an overhead crane, called the Timber Transfer, to lift standard gauge cars at Mount Union so that special narrow gauge trucks (center photo) can be fitted underneath. Thus interchange traffic is handled without expensive transfer of lading which would eat up the road's revenue.

Scenes at Mount Union. A standard gauge Pennsylvania Railroad hopper car, fitted with East Broad Top's narrow gauge trucks, stands on the three-rail track at Mount Union (top, opposite). L. C. L. is transferred to EBT motor trucks, center. Two standard gauge steam switchers handle yard work on three-rail track.

senger pace. Southbound trains are considerably slower than those in the other direction for two reasons: Southbound is nearly all upgrade, and there are longer stops in this direction. Occasionally No. 2 southbound in the morning encounters a good deal of yard work in Orbisonia and the whole schedule is thrown off, sometimes two hours.

East Broad Top freight business keeps the wheels turning. Approximately 70 per cent of the freight traffic consists of outbound shipments of coal originating at either Alvan, Woodvale, or Robertsdale on the main line and at Joller or the Coles Valley Branch. There is also a substantial carload traffic in rock demanded by the silica brick plants in Mount Union. The rock is quarried on top of the mountain just south of Three Springs. EBT still enjoys a very meager l.c.l. business which is handled by narrow gauge box cars in the regular freight trains on the main line. Since there is no regular passenger or freight service on any of the branches, l.c.l. traffic to points along the branches is handled by East Broad Top Transit Company, a bus and truck subsidiary of the railroad.

East Broad Top passenger traffic and l.c.l. traffic have been lost to the private auto-

mobile and truck, and little can or could have been done about it. However, a few years ago the competition of highway trucks began seriously to menace carload traffic. In fact, Mr. Jones says, "It was not uncommon to see 50 to 100 loaded coal trucks pass the general offices at Orbisonia on their way from the mines." After watching this performance for a time, it was decided to turn about and to try working with the truckers, if possible, instead of against them. A slight reduction in the freight rate, the offer of free use of unloading trestles standing idle in the Orbisonia yards, the EBT station agent acting as local coal sales agent, and the erection of large bill boards staring the truckers in the face, telling them of the miles of mountain roads saved by getting their coal at Orbisonia, did the trick.

Top, S. H. Fredericks Jr., Lockhaven, Pa.; others William Moedinger Jr.

The coal truckers are now working with the railroad. The truckers not only save the wear and tear to their trucks by not going up the mountains to the mines, but EBT nets a 20- to 22-mile haul out of it.

Several years ago East Broad Top officials encountered another problem. Being a narrow gauge road, all carload traffic received from or consigned to points on foreign railroads had to be transferred from cars of one gauge to cars of the other gauge. Inasmuch as the longest possible haul on the EBT does not exceed 33 miles, the cost of transferring the merchandise at Mount Union from one car to the other was eating seriously into revenue. In some cases, depending on the commodities involved, these transfer costs were almost prohibitive. And in some instances the merchandise was very fragile and the handling in the transfer resulted in disheartening damage claims. EBT solved the problem by rebuilding a number of narrow gauge freight car trucks for use under standard gauge car bodies.

Quite a number of years ago a man contracted to cut large tracts of timber in the Broad Top country; and to facilitate the transfer of the long, heavy logs from the narrow gauge cars to the

standard gauge flat cars, a stationary crane with a movable carriage spanning two tracks was erected in the Mount Union yards. When the man finally completed his timber cutting, the Timber Transfer, as the crane is called, remained idle a great part of the time. EBT officials decided this crane could be utilized to lift the standard gauge car bodies from their trucks while the narrow gauge trucks were substituted.

As soon as the Pennsylvania Railroad shifter spots a car on the interchange track at Mount Union, it is picked up by one of the EBT standard gauge shifters which whisks it to the timber transfer. A crew of four men and a crane operator do the rest. The brake rigging is disconnected and a specially constructed steel sling is fastened around the coupler shank. The crane operator then lifts the car body off the truck so as to clear the king pin. The standard gauge truck is rolled away and the crew returns with a narrow gauge truck. The crane carriage is moved so as to center the king pin bearing hole with the king pin of the narrow gauge truck and the car body is lowered. After repeating this procedure at the other end of the car, the brake rigging is secured and the car is ready to roll to any point on EBT's 50 miles of railroad.

This departure from the old method employed by other narrow gauge railroads works particularly well on EBT for several reasons. Even if you have never seen a standard gauge car on narrow gauge trucks, you can appreciate the amount of overhang and the tendency toward top-heaviness. EBT track, especially on the main line, is exceptionally well engineered and maintained and is just about what is needed when it comes to hauling standard gauge cars overhanging the rails three feet on each side. Too, the sharpest curve on the entire railroad does not exceed 17 degrees. While a 17-degree curve is not common on a standard gauge railroad, there are some with curves several degrees sharper.

Today the 33-mile main line and the 2.3-mile Coles Valley Branch account for the greater part of the traffic on the EBT because both serve coal mines. Excluding Mount Union, there are 15 stations along the main line, 10 of which boast a population totaling some 2500 persons. Only six of them are large enough to be called towns, the two largest being Orbisonia and Robertsdale, each with a population of around 700 or 800 people. The Shade Gap Branch serves five stations, only two of which might be called towns, and with combined population not exceeding 500 persons. This branch has had no passenger service for a number of years, while freight traffic today is irregular. Last year, however, the Shade Gap Branch traffic was augmented considerably while Pennsylvania's Dream Highway was under construction. Neelyton was the closest rail connection for many miles along this highway. Many carloads of road-building supplies were hauled in over the Shade Gap Branch. Most of the cars were standard gauge, including cement cars.

For the past five years the Rocky Ridge Branch has seen little or no traffic. At one time there was a substantial traffic in timber and coal. The writer has been told that this branch provided the only traffic in coal handled in standard gauge hopper cars direct from the mines to points along foreign railroads, the reason being that the coal was not graded and cleaned at the plant in Mount Union but consigned directly as it came from the mines.

If it were not for the heavy traffic derived from products of the mines, East Broad Top would probably be with the rest of the narrow gauge railroads in Pennsylvania, either completely gone or merely two streaks of rust, for EBT serves an area very sparsely settled. Except for the mining and the few industries directly dependent on the products of these mines, there are no important industries along the railroad. The southern end of the main line, where the mines are located, taps an area otherwise unproductive. If you will refer to an atlas, you will find the southern tip of the road extends just over the line into Fulton County. In reality this tip on the map is a mere few hundred feet, and this few hundred feet of track of the EBT comprises the only railroad tracks in Fulton County.

If you ride the EBT and chance to strike up a conversation with members of the crew, some one of them is sure to tell you the following story in connection with that few hundred feet of track. It seems back in the depths of the depression in the early thirties, when the federal government was handing out rather generous appropriations to be used for federal projects, Fulton County received an appropriation of some $50,000 to be used expressly for railroad grade crossing elimination, yet there were no grade crossings to

William Moedinger Jr.

This doesn't look like narrow gauge mountain railroading.

East Broad Top trains do most of their fastest running along the four miles between Shirleysburg and Orbisonia, top. The train in the bottom photo is really mixed. The box car is standard gauge New York Central and is curiously enough the only equipment which looks wrong size. Scene is near Mount Union.

eliminate. It is even more amusing when you come to realize that this few hundred feet of track for all practical purposes is merely yard track.

Main shops of the East Broad Top are at Orbisonia, and all of the rolling stock, with the sole exception of the private car and the passenger coaches purchased second-hand from the abandoned Boston, Revere Beach & Lynn, were built in these shops. All locomotive repairs are made here with the exception of those on the two standard gauge switchers stationed at Mount Union. These two engines are kept in a two-stall engine house by themselves and when repairs are necessary a narrow gauge tool train brings the needed equipment from Orbisonia. Parts requiring heavy repairs are removed from the engines and taken to the Orbisonia shops. The 299 steel hopper cars of 30- or 35-ton capacity were built in these shops. Other freight equipment includes 43 miscellaneous cars, mostly box and flat.

Between the two tunnels on the line is a real horseshoe curve, Coles Curve. At this point is the junction with the winding Coles Valley Branch. During the Winter months a watchman is stationed at each tunnel. As the train approaches, the engineer warns the watchman with two short whistle blasts. The watchman then walks far enough into the tunnel to ascertain that there are no obstructions and as the train looms in sight signals all clear by waving a white flag.

Before the mixed trains leave Robertsdale at the south end of the run one would think a one-car passenger train was about to pull out. The engine and combination car turn on the wye and stop in front of the station. Just before departure time the engine uncouples from the coach, runs down the main line, and picks up a string of loaded hopper cars from the siding. The brakeman then frees the hand brakes, allowing the coach to coast down onto the rear of the train.

The Lancaster Chapter of the National Railway Historical Society has operated two fan excursions over the line. The first, held May 3, 1936, proved so popular that another was operated May 19, 1940. Well over 200 fans joined in this last excursion, which covered the entire main line and the Coles Valley Branch. This short branch has never had passenger service but it is probably the most spectacular stretch of track on the EBT. It climbs the 2.3 miles to Joller on an average grade of 2.7 per cent, and in this short distance there are exactly 25 curves.

An incident occurred on the first fan excursion which is well worth repeating for the guidance of the ever growing fraternity of railfans. When the three-car train returned from the southern end of the line to Orbisonia in the afternoon, the railroad had carefully spotted three or four locomotives for the fans to photograph. The fans were given free access to the yards but a few of them insisted on abusing the privilege. About half a dozen of them commenced by climbing over the engines like so many monkeys, made it difficult for the photographers to get good pictures, and climaxed their antics by ringing the bells and blowing the whistles of all the engines with such determination and vengeance that the volunteer fire department in Orbisonia mistook the resulting uproar for a general fire alarm. This all occurred before the committee in charge had time to prevent the episode, and the committee departed from Mount Union that evening feeling pretty badly about the whole thing. When the second excursion was held a year ago, EBT made sure there wouldn't be a repetition by keeping all of the locomotives except No. 14, used to pull the train, locked in the roundhouse. However, the field trip committee also made sure that the patrons' conduct would not again embarrass it by stationing one or two vigilantes in each car to keep their eyes peeled for possible irresponsible characters. As a result the excursion was not marred by one breach of conduct, and the field trip committee redeemed itself in the eyes of the East Broad Top. While the National Railway Historical Society's membership is composed of no less sincere and responsible fans than any of the other like organizations, the incident illustrates the damage that can be done to any group by the ever-present minority of thoughtless and less level-headed persons. However, the writer feels sure that when N. R. H. S. again operates a railfan excursion over the lines of the EBT, the locomotives and private car No. 20 will be spotted for picture taking.

A daylight round trip, 9:20 a.m. to 3:15 p.m., from Mount Union to Woodvale, can conveniently be made during a stopover from Pennsylvania trains between Altoona and Harrisburg, either direction. It's a ride worth taking!

Pullman

★ George M. improved the existing sleeper, brought comfort to the rails.

For the last 75 years some residents of Colorado, and particularly Denver, have clung to the tradition that George M. Pullman got his idea of sleeping car berths from the bunks in the miners' cabins, but this notion is without factual basis. Mr. Pullman had a fleet of 12 sleeping cars before he ever saw Colorado.

The bunk, such as economically built into miners' cabins, goes back to primitive times. It was used in both forecastles and cabins of ships centuries ago; with the addition of curtains it furnished sleeping quarters on Erie Canal boats; it was the basic accommodation in America's first sleeping cars, which operated in Pennsylvania in 1836 and a number of years afterward. It was about 1853 when Pullman took his first sleeping car ride. He was young, 22, and the distance between Buffalo and Westfield, N. Y., was only 60 miles, but the discomforts were numerous. There were three tiers of bunks and there was little or no bedding, merely a place to lie down. The thoughtful young man wondered whether a car could not be constructed that would serve both day and night travel, and furnish some comforts, too. Some five years elapsed before he again considered the matter, but then he had real ideas. George M. Pullman never claimed the invention of the sleeping car. He did, however, produce more comfortable cars than any then in service, and he also proved to be a marvelous organizer for his budding business.

It was in 1858, the year before John Brown raided Harpers Ferry, that Pullman and his associates first started actual operation of sleeping cars. About April 6, they made a contract with the Galena & Chicago Union Railroad to furnish sleeping cars to run between Chicago and Freeport, Ill., and Dubuque, Ia. They soon began remodeling two Chicago & Alton day coaches, Nos. 9 and 19, into sleeping cars. The backs of the seats were swung together to form the lower berth, while the upper was lowered from the flat roof by means of ropes and pulleys. In September, 1859, these cars were put into service on the Alton, and were followed by others that Pullman and his associates remodeled or otherwise operated. The enterprise was temporarily abandoned in 1861, not because the railroad did not see the sleeping cars' value, but for the reason that the

Civil War had begun, and the United States Government needed these and other such cars for the transporting of troops.

Under these circumstances Pullman's thoughts turned to Colorado, where the "Pike's Pike or Bust" rush had settled into a steady movement of settlers, at least half of whom probably intended to mine gold. Because of the initial big discoveries at Russell Gulch, Clear Creek and Gilpin counties were the center of attraction, and towns such as Idaho Springs and Central City rose almost over night. The miners, in and out of the towns, needed a constant flow of supplies, and Pullman saw an opportunity to participate in this phase of mining, as well as working claims and buying ore. Between Denver and Golden there stands today an old house known as the Cold Spring Ranch, with a sign announcing that there George M. Pullman evolved the sleeping car. As a matter of fact, this ranch house was a half-way point between Denver and the gateway to the hills, and was used by Pullman and probably by others as a resting point for their teams of horses or oxen, and a place for storing supplies.

Interior of No. 9.

It would be futile to assert that Pullman did not think about his shortlived sleeping car business while in Colorado, and undoubtedly he planned greater things when the Civil War should end. However, he learned nothing from the cabin bunks; that was the type of sleeping car construction he had gotten away from in 1859.

After more than two years in Colorado Pullman decided to return to Chicago, possibly sensing that Gettysburg was the turning point in the war. He had made no great fortune out of the mining industry but, together with his original capital, he had better than $20,000. This he decided to invest in a sleeping car that would be far ahead of anything he or other experimenters had produced. This was the famed *Pioneer*, the first all-Pullman-built car, and it took nearly all his savings. *Pioneer* had hardwood interior finish, tastily upholstered seats, beveled mirrors, and upper berths that were hinged and folded toward the side and roof. This latter improvement necessitated a higher car than usual and proved the forerunner of the double-deck style. The car was also wider in order to furnish more comfort.

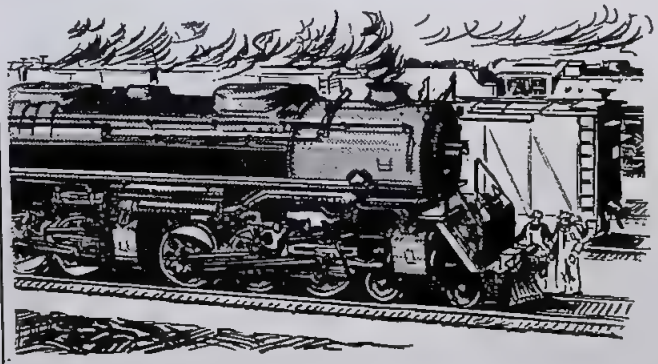
Some railroad men asserted that *Pioneer* was too high and wide for any railroad, and for a time it seemed without a market. Fate intervened in Pullman's behalf. President Lincoln was shot April 14, 1865, and his remains were carried across the country in a special train from Washington to his home at Springfield, Ill. Pullman's new car was wanted to convey the President's family on the last portion of the journey, from Chicago to Springfield. It was rushed to completion and the Alton Road altered platforms and bridges where necessary. From then on the Pullman type of advanced railway car architecture prevailed, though the changes naturally took some time.

Thus began the rise of a tremendous, far-reaching industry, destined to lead its field in furnishing comfort and safety for those who travel by rail.

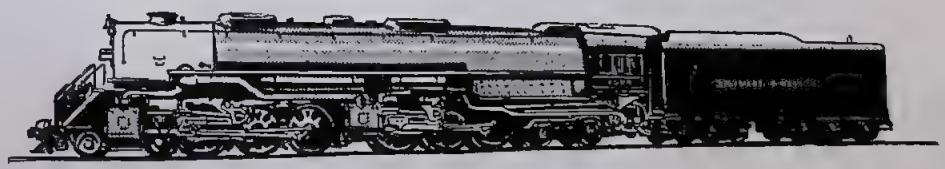
D&H 4-6-6-4

"the D&H"

Perhaps the most outstanding feature of the 20 new Delaware & Hudson articulated locomotives is the recessed headlight centered on the boiler front. These engines bear a remarkable semblance to the Union Pacific's 3900 series, but have cleaner lines.



Two hundred fifteen miles of steep grades between Wilkes-Barre, Pa., and Mechanicville, N. Y., are no hindrance to these Alco 4-6-6-4's. These were built to supplant 2-8-0's that frequently had to be double-headed over steeper portions of this line.



Road class, J-95 (Nos. 1500 to 1519). Maximum height, 16'-5½". Drivers, 69". Tractive force, 94,400 pounds. All four cylinders 20½" diameter, 32" stroke. Walschaert valve gear. Boiler pressure, 285 pounds. Tender capacity, 22,500 gallons, 26 tons.

GIL REID

58 miles, 52 minutes, from Camden ferry to Atlantic surf.

Consistently fastest of all the short runs in this country is the slightly less than 60 miles of nearly straight level track that stretches from Camden, across the Delaware from Philadelphia, southeast to Atlantic City. The 4-4-2 type of locomotive was named Atlantic because first designed for this race track. Back before 1900, Reading expresses were regularly, for months at a time, rolling up daily accomplishments of 70 miles per hour, start to stop, and in 1904 115 miles an hour was reached. Then two railroads competed for the seashore business; now the consolidated Pennsylvania-Reading Seashore lines keep up the fast service tradition in competition with other forms of transportation.

Penn-Reading Seashore

★ Once rival systems in southern New Jersey, P-RS now gives efficient, cooperative services.

By A. C. Kalmbach.

SIXTY miles east of Philadelphia, sweltering hot under a Summer sun, is the air-conditioned Atlantic Coast; sixty miles across flat New Jersey, sixty miles crossed and recrossed by railroads past and present, most of them now part of the 715-mile network of the Pennylvania-Reading Seashore Lines, a Class 1 carrier in its own right.

Corporately speaking, the Pennsylvania-Reading Seashore Lines is a railroad by itself and not a part of either of the large systems whose name it bears. It was formed June 25, 1933, by the unification of the former West Jersey & Seashore Lines of the Pennsylvania Railroad and the former Atlantic City Railroad of the Philadelphia & Reading Company. The Pennsylvania owns two-thirds of the stock and the Reading Company the balance.

The lines of the company spread out like the fingers of a hand from Camden to reach south and southeast, as far as the coast resort area from Cape May to Atlantic City, into the commuting and farm area of central South Jersey, and to the heavy industrial plants along the Delaware River. Eighteen hundred employees are required to operate the lines during the 24 hours, and 82 freight and passenger agencies are maintained. From the passenger standpoint the Atlantic City line is most interesting, and in addition to the service over the Seashore Lines proper, connections are made to New York and Washington, and through sleeping car service is operated in connection with the Pennsylvania Railroad to Pittsburgh, and to Chicago in the Summer months.

The Seashore lines operate a daily total of 176 passenger trains (Summer season), 115 of which run between Market Street Wharf (via ferry across the Delaware River to Camden) or Broad Street Station, Philadelphia, and South Jersey coast resorts. In addition to these regularly scheduled trains, many extra trains are operated over weekends to accommodate the thousands of people seeking relief from the city heat in the cooling breezes of the seashore.

The majority of the Atlantic City express trains carry names indicative of resort atmosphere, the leaders of the fleet being the *Boardwalk Flyer* and the *Barnacle Bill Special*, and others include the *Boardwalk Arrow*, the *Skipper*, the *Cruiser*, the *Dolphin*, the *Seahawk*, and the *Navigator*. The faster trains are those running from Camden, with passengers ferried across the river from Philadelphia, but trains are also run by an all-rail route from Broad Street Station at the center of Philadelphia, west to the 30th Street Station, north to North Philadelphia, and then across the river on the Delair

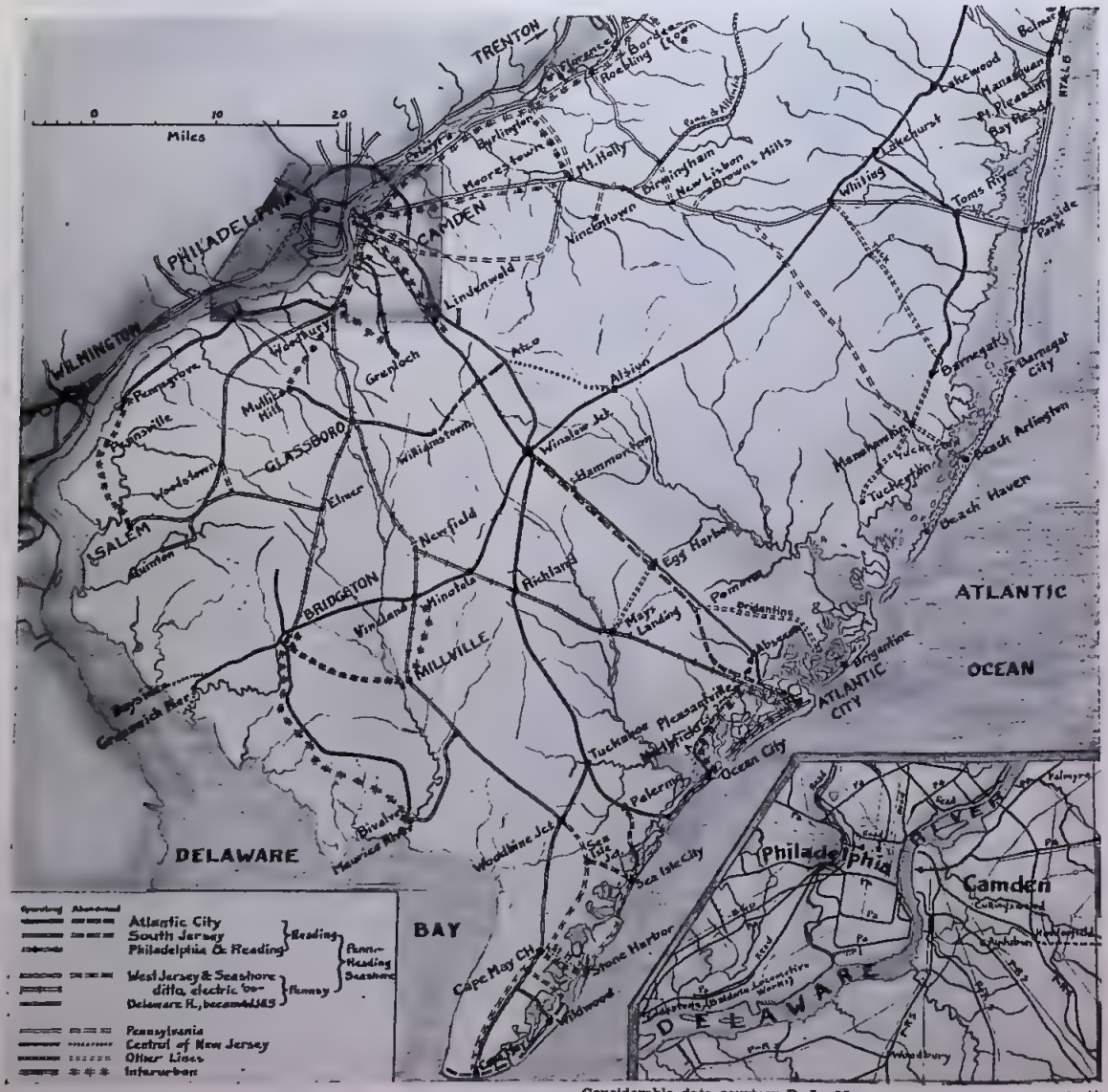
Illustrations courtesy Pennsylvania Railroad.

Trains map of Southern Jersey.

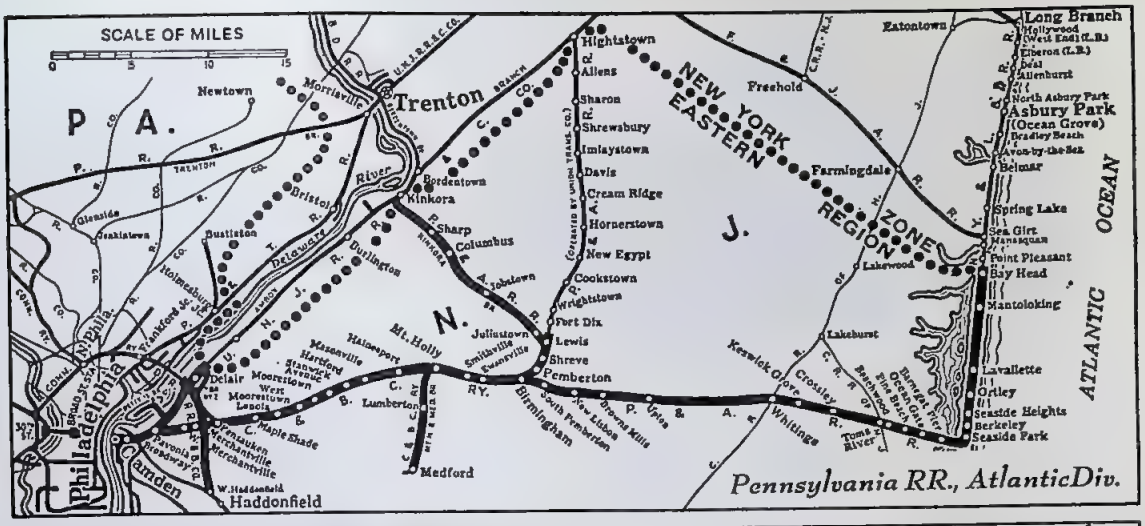
Southern New Jersey hasn't quite as many railroads as in years gone by, but one can still go from here to there and back again, with service and frequency the equal of almost any similar area's. Except for the Central of New Jersey, most of this trackage is operated by the Pennsylvania-Reading Seashore Lines.

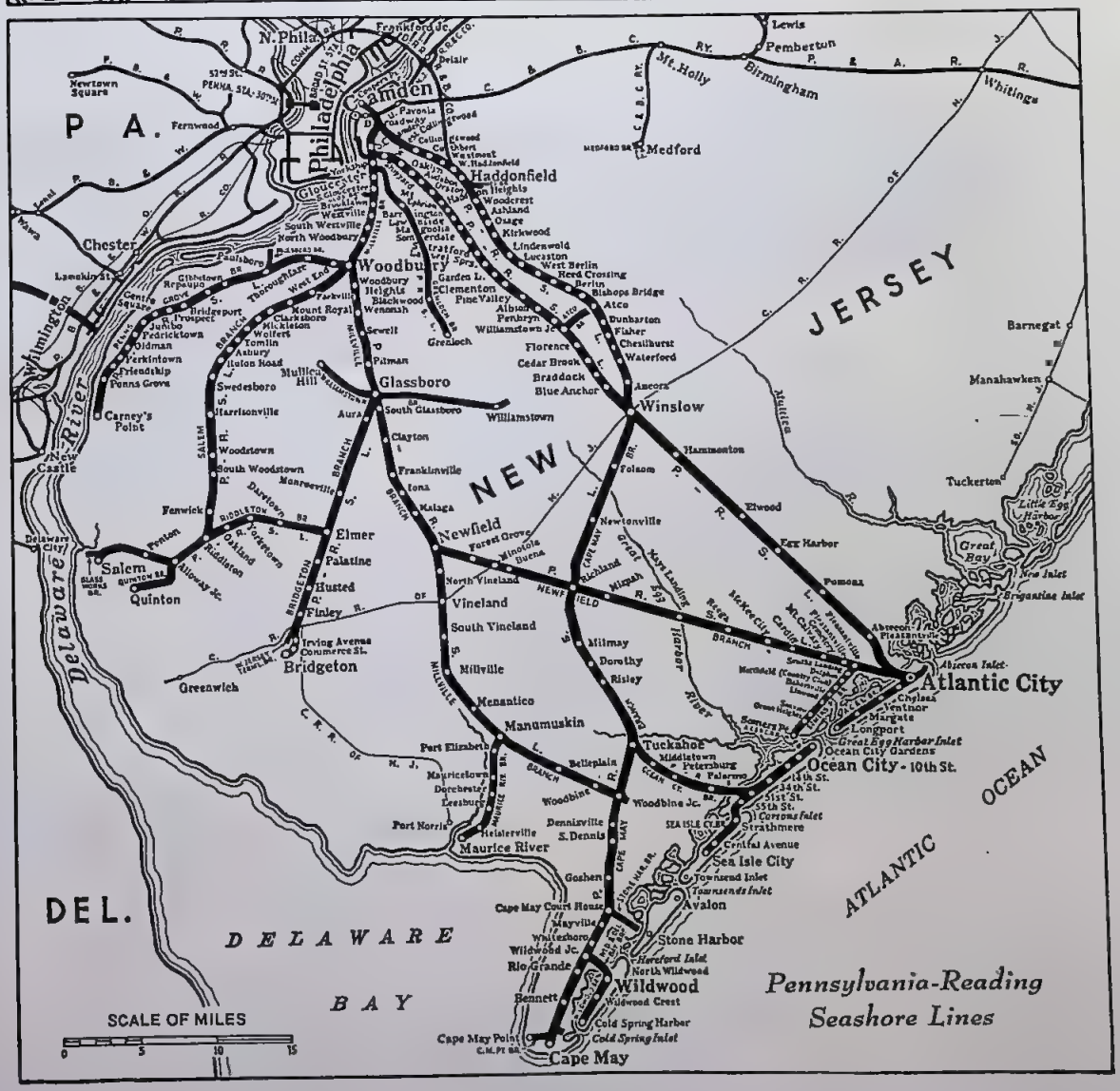
Most traveled sector is from Philadelphia southeast to Atlantic City. Two competitive routes once ran all the way, the Reading and the Pennsylvania. Now the longer line from Winslow Junction to the coast has been abandoned, and both routes are in use from Camden to Winslow Junction. Notice that both roads formerly had distance disadvantages, the Pennsy between Winslow Junction and Camden, and the Reading between Winslow Junction and the coast. Now the Seashore Lines combines the shortest halves of each and saves a mile for the fastest trains. Other trains use the longer route to make local stops. Still others use the roundabout bridge route northeast of Philadelphia, but save the ferry transfer across the Delaware River to Camden. Haddonfield, referred to in the text, is near the *C* in the word Camden.

The electrified service south of Camden to Millville and Bridgeton is primarily rush hour, with multiple unit cars using third rail current collection. The trackage from Newfield to Atlantic City is no longer electrified, and is used only by a gas-electric car which twice daily connects with electric trains at Newfield.



Considerable data courtesy R. Le Massena; map by Linn H. Westcott.


SCALE OF MILES
0 5 10 15
P A.
Newtown
Morrisville
Trenton
Bordentown
Kinkora
Bristol
Bustleton
Glenside
Jenkintown
Holmesburg
Delaware River
Burlington
Sharp
Columbus
Jobstown
Juliustown
Smithville
Evesville
Mt. Holly
Hainesport
Masonville
Hartford
Statewick
Avenwick
Moorestown
West Moorestown
Lenola
Delair
Lumberton
Maple Shade
Pennsauken
Merchantville
Merchantville
Pavonia
Broadway
Camden
Philadelphia
W. Haddonfield
Haddonfield
Medford
Birmingham
South Pemberton
Pemberton
Lewis
Fort Dix
Wrightstown
Cookstown
New Egypt
Hornerstown
Cream Ridge
Davis
Imlaystown
Shrewsbury
Sharon
Allens
Hightstown
NEW YORK EASTERN ZONE REGION
J.
N.
Freehold
Farmingdale
Lakewood
Lakehurst
Keswick Grove
Crosley
Whitings
Tom's River
Eatontown
Long Branch
Hollywood
West End (L.B.)
Elberon (L.B.)
Deal
Allenhurst
North Asbury Park
Asbury Park
(Ocean Grove)
Bradley Beach
Avon-by-the-Sea
Belmar
Spring Lake
Sea Girt
Manasquan
Point Pleasant
Bay Head
Mantoloking
Lavallette
Ortley
Seaside Heights
Berkeley
Seaside Park
Bayhead
Pine Beach
Ocean Gate
Barnegat Pier
ATLANTIC OCEAN
Pennsylvania RR., Atlantic Div.


P A.
N. Phila.
Philadelphia
Camden
Newtown Square
Fernwood
Chester
Lamokin St.
Wilmington
Delaware River
New Castle
Delaware City
Salem
Quinton
Carney's Point
Penton
Fenwick
Oldman
Pedricktown
Friendship
Punns Grove
Swedesboro
Harrisonville
Woodstown
South Woodstown
Monroeville
Elmer
Palatine
Husted
Finley
Bridgeton
Greenwich
Irving Avenue
Commerce St.
Haddonfield
Woodcrest
Ashland
Osage
Kirkwood
Lindenwold
Lucaston
West Berlin
Berlin
Bishops Bridge
Atco
Dunbarton
Fisher
Chesilhurst
Waterford
Ancora
Winslow
Hammonton
Folsom
Elwood
Egg Harbor
Pomona
Atlantic City
Absecon
Pleasantville
Chelsea
Ventnor
Margate
Longport
Great Egg Harbor Inlet
Ocean City Gardens
Ocean City - 10th St.
14th St.
34th St.
51st St.
55th St.
Corsons Inlet
Strathmere
Central Avenue
Sea Isle City
Townsend Inlet
Townsends Inlet
Avalon
Stone Harbor
Hereford Inlet
North Wildwood
Wildwood
Wildwood Crest
Cold Spring Harbor
Cold Spring Inlet
Cape May
Cape May Point
Cape May Court House
Mayville
Whitesboro
Wildwood Jc.
Rio Grande
Bennett
Goshen
Woodbine Jc.
Woodbine
Dennisville
S. Dennis
Belleplain
Tuckahoe
Middletown
Petersburg
Palermo
Manumuskin
Millville
Menantico
Dorothy
Risley
Millmay
Vineland
South Vineland
North Vineland
Newfield
Forest Grove
Minotola
Buena
Malaga
Franklinville
Iona
Clayton
Aura
Glassboro
South Glassboro
Williamstown
Mullica Hill
Woodbury
Woodbury Heights
Blackwood
Wenonah
Sewell
Pitman
Clementon
Pine Valley
Garden L.
Grenloch
Albion
Pennsville
Williamstown Jc.
Florence
Cedar Brook
Braddock
Blue Anchor
Tuckerton
Barnegat
Manahawken
Little Egg Harbor
Great Bay
New Inlet
Brigantine Inlet
Absecon Inlet
Maurice River
Port Elizabeth
Maurice Jc.
Dorchester
Leesburg
Port Norris
Heislerville
Medford
Birmingham
Pemberton
Lewis
Whitings
Mt. Holly
JERSEY
NEW
DEL.
DELAWARE BAY
ATLANTIC OCEAN
SCALE OF MILES
0 5 10 15
Pennsylvania-Reading Seashore Lines

Mile 0.9, Center Tower, Camden. Notice third rail.

Mile 5.1, Collingswood, suburban territory.

Mile 7.0, West Haddonfield. Train approaches from Delaware River Bridge, shown below.

Bridge. In spite of the roundabout route, fast time is made and the several stops in parts of Philadelphia remote from the ferries makes these bridge route trains popular, and traffic is fairly evenly divided between the two lines.

New York trains to Atlantic City include both those over the Pennsylvania Railroad, leaving the main line at Trenton, and the *Blue Comet* of the Jersey Central, which uses the Seashore Lines from Winslow Junction to Atlantic City. Either way this service is at a handicap compared with automobile and bus competition, because of longer mileage. The trains move right along, though, making the run in three hours or less, and they carry modern, comfortable equipment. The *Blue Comet* is all-coach with an observation car and diner, and the Pennsy trains carry both coaches and parlor cars as well as diners at mealtimes. On the Philadelphia-Atlantic City lines the trains have all the edge, making the run in about half driving or bus time.

The trains via Camden and the ferries to Atlantic City travel over either of the two nearly parallel lines (see map, page 23) to Winslow, while the bridge route trains use the northernmost route, through Haddonfield. Beyond Winslow the lines are joined for the nearly straightaway stretch across the Meadows to Atlantic City. Before 1933 two highly competitive routes existed all the way, the Reading, or Atlantic City Rail-

road, via Haddon Heights and Winslow Junction to Atlantic City, and the Pennsylvania, or West Jersey & Seashore, via Haddonfield and Winslow Junction to Atlantic City. Both lines were known for fast running, but especially the Reading, which had plenty of straight, level track. Many a speed record was made over the Reading's 55.5 miles, which was scheduled in 50 minutes. The Pennsy's line was 59.7 miles, scheduled in 53 minutes. But the Pennsy had a shorter ferry transfer, and with the ferry time both railroads scheduled service from Philadelphia to Atlantic City in 60 minutes flat.

Still another through rail route to Atlantic City was the electrified trackage of the Pennsylvania via Newfield. As the map shows, this was considerably longer, 65 miles. It was electrified with third rail in 1906, and along with the New York terminal gave the Pennsylvania experience with this type of current distribution on which it could base its future electrification plans. This is no longer a through route. The third rail operation has been abandoned east of Newfield and the only service to Atlantic City is now several gas-electric cars, none of which run through to Camden.

Thus 10 years ago Atlantic City had a plethora of rail service to Philadelphia: fast trains via two competitive routes to Camden, fast trains over the Delair bridge, and slower service via Newfield. Atlantic City, in fact, owed its existence to the early creation of good railroad connections. In 1850 it took three days to travel to Philadelphia in springless carts over very poor roads. The first railroad was completed in 1854, the Camden & Atlantic, later to become the Pennsylvania line via Haddonfield. Once the Civil War was over, the seacoast resorts enjoyed a boom, and a network of rail lines was developed serving the entire district down to Cap May. It was 1877 before competition came into the picture with the building of the Atlantic City Railroad, originally narrow gauge. This line was taken over by the Reading in 1883, changed to standard gauge in 1884, and double tracked in 1889.

Automobile and bus competition came and the depression added to the troubles of the double service to Atlantic City. By 1933 a consolidation and elimination of competitive mileage seemed the solution and the Pennsylvania-Reading Seashore Lines Corporation was formed. A new terminal was built in Atlantic City, replacing three former stations. Trains were rerouted to use to best advantage the trackage of both predecessor companies and the strictly competitive racetrack mileage of the Atlantic City Railroad from Winslow to Atlantic

Some trains leave Broad Street, Philadelphia.

Below, *Flying Eagle* steams west. Bishop's Bridge, N.J.

At right corner, Vernon tower controls the bridge line junction at West Haddonfield.

Winslow Junction and tower. Cape May trains go to the right.

City was abandoned. Now the shortest line from Camden ferries to Atlantic City is half ex-Pennsy and half ex-Reading and one mile shorter than the shortest route before the consolidation.

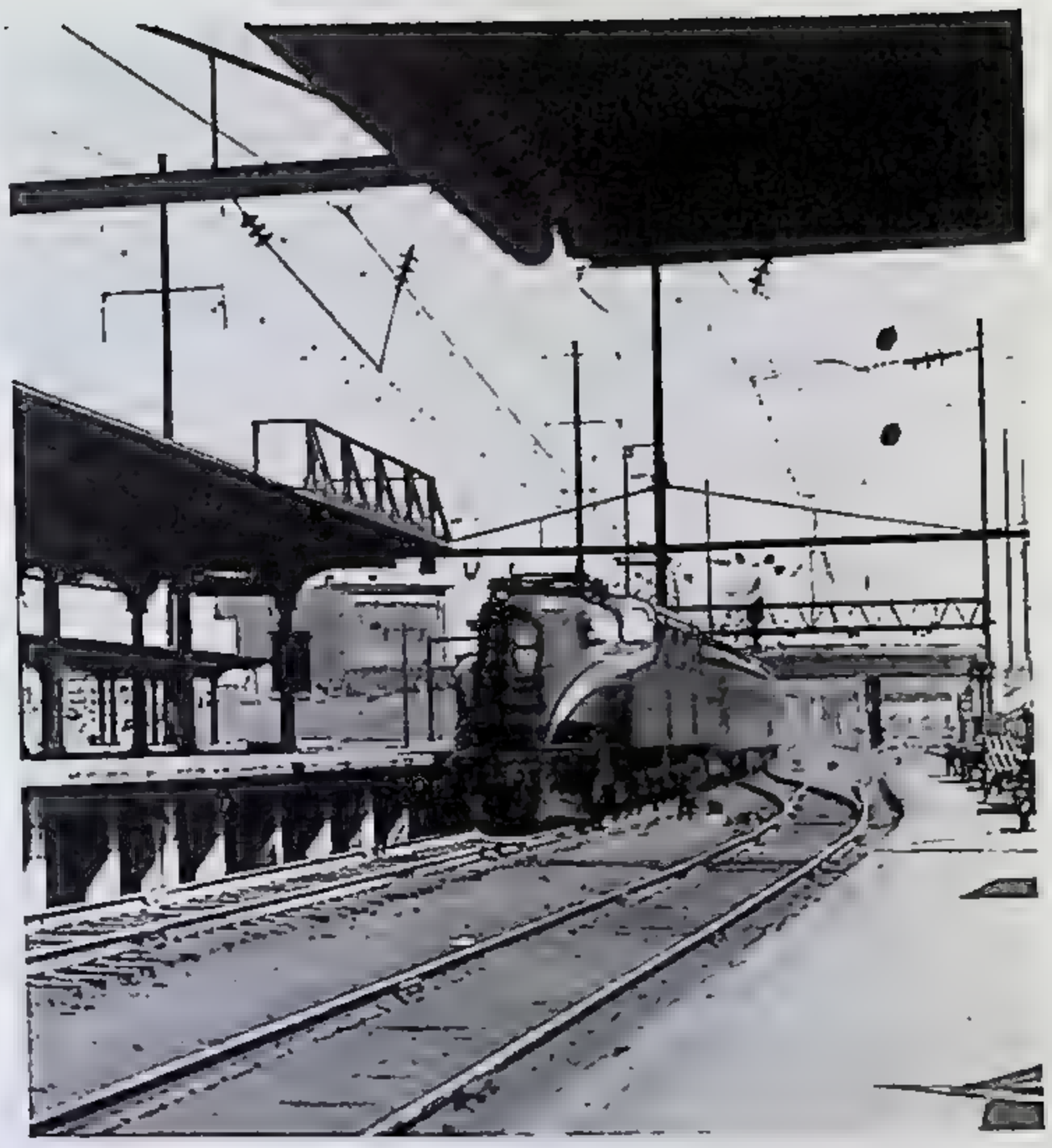
The *Boardwalk Flyer* runs the 58 miles from Camden to Atlantic City in 52 minutes and has been doing this for years. It is made up of standard equipment carrying the Seashore Lines herald, and is usually pulled by an E-6 Atlantic type locomotive of Pennsy ancestry. Sometimes a former Reading Pacific, Class G, hauls this train. The maximum timetable speed is 80 miles an hour, and is equaled by some of the Delair Bridge trains from Broad Street Station. This isn't the flashy running of the 1890's, when the Atlantic City Railroad was called the "high speed line" and the 1026 and 1027, anthracite-burning Mother Hubbards, made speeds of more than 100 miles per hour with a record 115 between Brigantine Junction and Egg Harbor by the 1027 in 1904. But it is good, consistent, reliable performance.

The Seashore lines own 27 locomotives, 163 passenger cars, and 68 freight cars. In addition a number of K-4's and coaches are rented from the Pennsylvania in the Summer to handle the extra business. The 27 locomotives include five 0-6-0 switchers, 10 Atlantics, and 12 Consolidations. These are all former Pennsy engines, and are lettered for the P-RSL. Obviously the 10 passenger locomotives are far from enough to haul the 176 daily passenger trains in the Summer season, and that's what makes Seashore Lines operation particularly interesting, for one may see all sorts of combinations of rented Reading and Pennsy equipment in use. [See page 39, TRAINS, Jan. '40.]

Freight service consists of 18 regular freight trains in each direction, serving the entire rich agricultural and industrial area of South Jersey. Everything is produced in this territory from battleships to bottle tops. One of the most important commodities is a special grade of silica sand which is pulverized and used all over the United States in the manufacture of such articles as steel, glassware, chemicals, and even face powder!

Electrification of the Atlantic City line was talked about in 1938, and a few years earlier there was talk of the state of New Jersey taking over the South Jersey lines. Both these proposals petered out, and the consolidated company is now making a good job of pulling out of the bad financial circumstances which forced its organization. Train-mile income and number of passengers have both increased since 1933, and war work, especially shipbuilding, which centers so heavily in the Delaware River area, can be expected to still

Atlantic City's "Atlantic Tower."



Trains from New York leave juice line at Trenton.

further improve the 1941 results. Deficits are still shown on the annual statements, but certainly in South Jersey the situation, both for public and for railroad owners, is much better than had two companies continued to compete against each other as they did before 1933. Competition still exists, but now it is competition by a united railroad front against other means of transportation.

For a quick look-see at the Seashore Lines, take a round trip to either Atlantic City or Cape May. For either of these trips two routes are available. Go from the Broad Street Station in Philadelphia, over the Delair Bridge route, and choose a fast through train. Then from either destination return to Camden and the ferry via the roundabout route, which includes a ride on the electrified suburban trackage. From Atlantic City this means returning via Newfield, and from Cape May via Millville. Late afternoon trains make both runs.

Tuckahoe, Ocean City and Cape May branches.

Below, Atlantic City terminus.

Glamor Girl

★ She put the oomph in Union Pacific's *Challenger* service and kept traffic on the rails.

GLAMOR girls! Hollywood has them; Broadway has them. Even radio, with its Bonnie Bakers and its Connie Boswells, has them.

But here is a glamor girl of a different type. She doesn't charm with a baby stare nor by crooning with a swing band. Her charm lies in a different field. She put the oomph in modern railroading.

The traveling public doesn't give her credit for it. It sees the physical aspects of her work, and likes it. But if you were to mention the name of Avis Lobdell to any passenger on a Union Pacific glamorized train, the chances are you'd be met with a vacant stare.

Avis Lobdell is the person responsible for the *Challenger* service on the UP. You can thank her for those low-rate sleepers, those free pillows (if you elect to sleep in the chair car), those free drinking cups which used to cost a penny, those inexpensive meals on the diner. She's responsible for the segregation of crying infants from the rest of the train, so that the business men and the bachelors—yes, and the school teachers on vacation—can arrive at their destinations free from the jangling nerves which result from a long ride to the accompaniment of a myriad children's wails.

The children like it better, too. They and

All illustrations courtesy Union Pacific.

Miss Avis Lobdell.

Smiling at you from the right is the woman behind the *Challenger* service. A keen student of human likes and dislikes, her job is to ride trains and find out what the travelers like, what they don't like, and then to act upon her findings. She abolished the penny-in-the-slot for drinking cups, much to the relief of harassed parents whose ever-thirsty offspring kept them digging in their purses. On the opposite page is a glimpse of a *Challenger* coach with a few added attractions through the efforts of the railroad's publicity department. Below is No. 800 ready to leave with a *Challenger* train, No. 717.

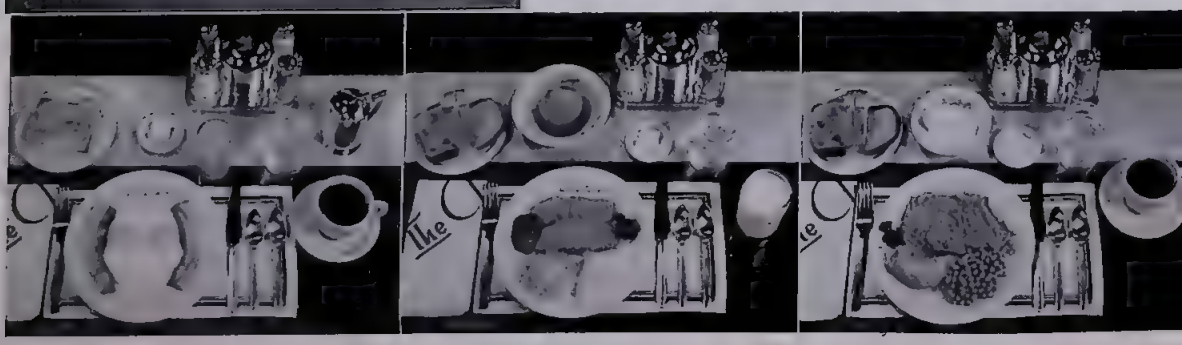
their mothers have a special car reserved just for them. The train's nurse-stewardess renders her greatest service in this car. She makes a list of all the babies, together with their feeding hours and formulas. At the appointed hour she collects the bottles, goes to the kitchen, prepares the formulas, and returns to give the proper bottle to the proper child.

Challenger trains now include "ladies' cars," into which no man dares set foot after 10 p. m. Here the ladies literally take down their hair, or do it up in curlers, or smear whatever it is that they smear on their faces. Off come the corsets and girdles and shoes; on go the lounging pajamas and bedroom slippers. The stewardess aids as she can, and the service is free. Tips are forbidden.

Miss Lobdell is essentially a woman's woman. She sees railroads from a woman's point of view, and suggests changes to conform with a woman's ideas of what railroad travel should be. Before the days of low-cost dining service, for instance, there just wasn't anything on the luncheon menu that appealed to a woman. Swiss steak and fried potatoes were fine for the men, but almost any woman prefers a fruit salad and dainty finger sandwiches at noon. Now she can get what she wants.

Children's appetities have improved, too, through the UP's use of menus in the form of big brown bears, with decorations on the inside from the story of Goldilocks. The problem of getting youngsters to eat while traveling has been solved by this single expedient. It's another Lobdell achievement.

But not all the benefits from Miss Lobdell's work are enjoyed solely by the women. Men are benefited by the new-type coaches and sleepers and by the low-cost dining facilities. A full day's food—that is, three meals—can be purchased for a little more than a dollar. Coach porters have been added to keep



coaches in spic-and-span condition. Coach lights are dimmed at 10 p. m. for those who like to sleep without a newspaper or hat over their faces. Pillows are free. Temperatures are raised slightly in the air-conditioned cars at night for the comfort of the sleepers.

All this has taken place in the last few years. It is the Union Pacific's answer to private automobile and bus competition. Other roads have improved traveling conditions, too. You'll find very few that haven't, since Avis Lobdell showed what could be done, in 1935.

How has she done all this? By riding trains, interviewing travelers, making note of their likes and dislikes. She's done it by wandering through chair cars at night, observing the positions of the sleeping passengers, noting the expressions on their faces. She even carries a pocket thermometer to check the temperature in the cars. She puts herself in the passengers' places, and if she finds she doesn't like those places she changes them so she does.

Miss Lobdell was the first private investigator hired by a railroad, but she has pioneered in other capacities too. She was the first woman theatrical press agent on the Pacific Coast when, in 1914, she was appointed to that job by the Orpheum Theater in Portland, Ore. Two years later she broke another precedent when, with three other women, she was given a job as woman passenger agent for the UP in Portland—the first time a woman had ever held such a position. Two years more and she became the head of the first department established for the welfare of woman railroad employees, still with the UP. Now she holds the title of "special representative of the president."

Miss Lobdell knew a lot about trains before she ever got into railroad work. As an actress she had trouped from coast to coast, and she knows what used to be wrong with the railroads.

Challenger dining and lounge cars.

The old-fashioned layers of linen are gone from the tables of the modern dining car at the left, typical of those in *Challenger* service. In their stead are doilies and napkins, which serve the purpose and cut costs. Typical meals are shown at the bottom of the page in the order in which they're eaten—breakfast, lunch, dinner. Railroads other than the UP have followed the lead set by Miss Lobdell, both in the dining service and in furnishing such restful surroundings as typified by the tourist lounge car at the right. Throughout tourist-class trains there is an air of vacation-time informality which adds greatly to the pleasure of railroad travel for the average American citizen.

Port Isabel Branch

★ Once the narrow gauge Rio Grande Railroad, now an important tidewater connection for MoPac.

"BUILD me a railroad straight as the crow flies," said Simon Celaya, the wealthy Spaniard. And H. N. Field, the American engineer, did it. The 26 miles of railroad stretched level and almost straight from Brownsville, the southernmost tip of Texas, northeast to Point Isabel, later Port Isabel, on tidewater inside a protecting bar. This was in 1870, when the Suez Canal had been open only a year and when the telephone was not yet heard of. And now the Port Isabel & Rio Grande Valley which Engineer Field created is no more. Yet it has not exactly been abandoned. Its most useful portions have instead been absorbed into the Missouri Pacific System.

Seventy years ago Point Isabel was the only seaport for all northeastern Mexico and southern Texas, a busy place indeed. The railroad over the tidewater flats to the wharfs had good prospects. Slow river steamboats had been carrying freight from Brownsville to the coast. The track was built to 3′-6″ gauge. To keep the line as straight as possible required 18,000 feet of trestle over marshes and lagoons, piling for which had to be brought in by sailing vessels and dumped out to float ashore over the bars. The 23 miles of track on dry land could not have been much of a problem, for picture a railroad builders' paradise where a 25-foot elevation is a comparative mountain! The equipment was Spanish in design, and even the sidedoor passenger coaches came from Spain.

Traffic was heavy. Four little narrow gauge locomotives worked night and day moving cattle, minerals, and horses to the wharves and fish and manufactured goods to Brownsville. Many gold and silver shipments were routed over these rails, and in fact there are reports of one holdup which netted the bandits $160,000 in bullion.

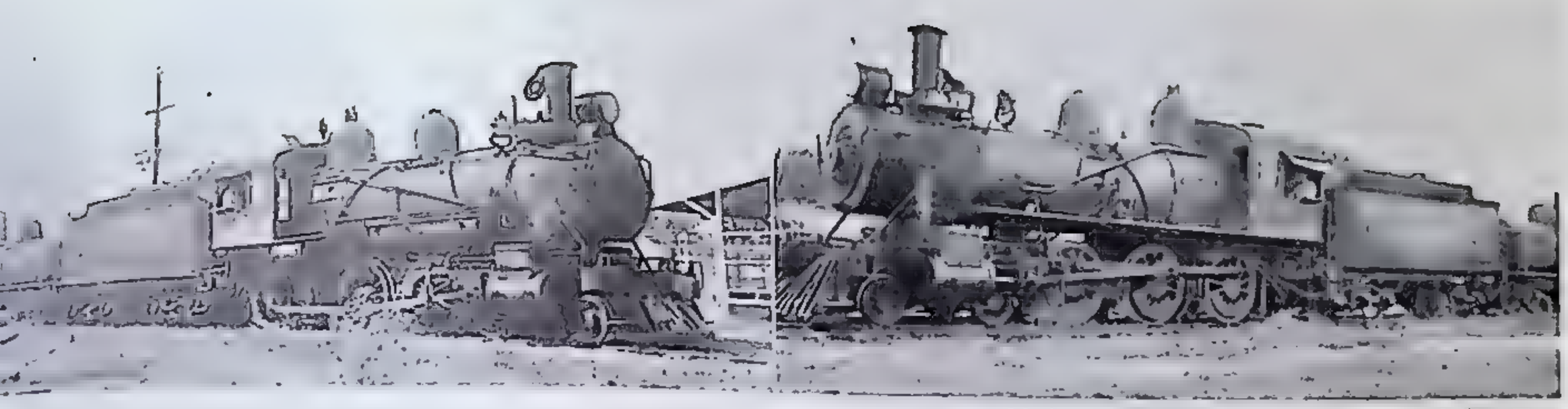
Brownsville grew and prospered. By 1910 it had passed 10,000 population and was the trading center for a rich and extensive agricultural region in southern Texas and northern Mexico, and an important market for fruit, sugar cane, vegetables, and livestock. But the little railroad did not prosper in kind. By 1910 it had an annual revenue of $6564, out of which the management could only make a blind stab at paying expenses and taxes of $14,799.

New ports had been opened and a new railroad had been built into Brownsville, distributing the traffic to other points for

No. 3, a narrow gauge 4-4-0, built by Baldwin Locomotive Works in 1879, was in service until 1917. The old photo at the right shows her at Port Isabel about 1880. The homemade motor car at the left, powered by a Ford Model A engine, handled the entire passenger business in the years of decreasing revenue.

Mack Tomme collection.

Ralph Carlson, Harlingen, Tex.



Mack Tomme, P O. Box 484, Raymondville, Tex.

No. 8, left, was purchased from the T&NO in 1939 and was formerly No. 358 of the larger road. She was in service at time of abandonment. No. 7 was also ex-T&NO, No. 315, and was scrapped in 1939. Locos 6, 7, and 8 all used the same tender, which must have traveled plenty of miles in service.

ship loading. The wharves were rotting, and the trestles were a continual maintenance problem. But hope springs eternal, or something like that, and new owners put more money into a general rebuilding of the property. The main line was rerouted to avoid the lagoons and marshes. The wharves were repaired, the channel dredged and a turning basin for ships created, and gauge was widened to 4′-8½″.

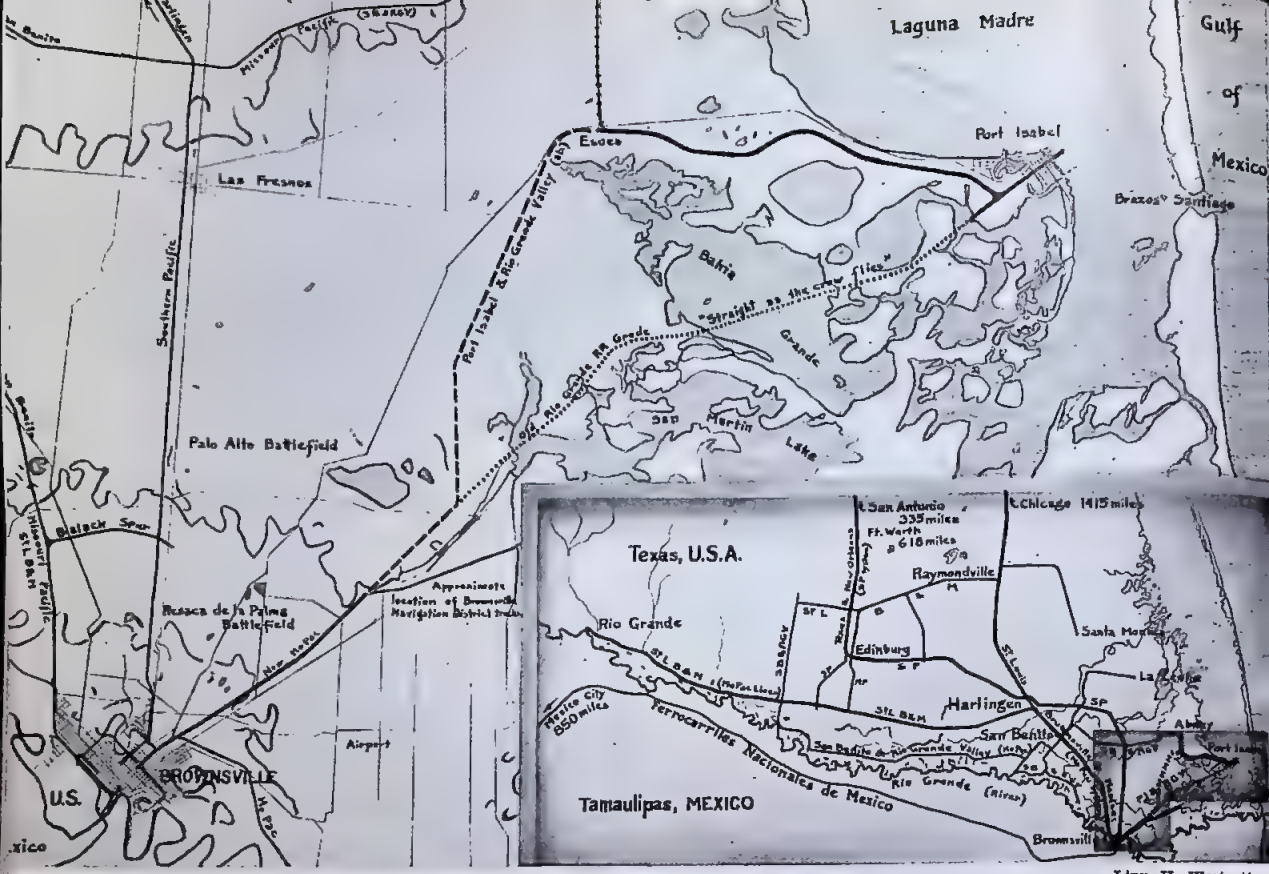
But all this helped little. Perhaps there just wasn't so much traffic destined for ships. Perhaps some of it was being loaded at the newer Port of Brownsville, served by the same ship channel as Port Isabel, but practically in Brownsville and so but a very short haul for the Port Isabel & Rio Grande. *Railway Age* says, "It seemed that the little road could no longer exist. But it did. To Jose Ayala, the 75-year-old master mechanic, was due much credit. He became also the engineer of the one train a day as well as section boss and crew. With his hand at the throttle old No. 4 pulled out each morning at 9. If down the line a piece of track needed repair, he stopped the train and cut a new crosstie from the mesquite or salt cedar at the roadside or used a discarded fence post. He labored far into the night patching up his equipment for the run the next day."

Two passenger runs a day were maintained in recent years with a home-built motor car, and a single steam locomotive handled freight. The end grew nearer and nearer. And with the growing inevitability of abandonment came the vision of two seaports, Port Isabel and the Port of Brownsville, left without rail connection to the outside world.

Here's where the Missouri Pacific stepped

Brownsville engine house of the Port Isabel & Rio Grande Valley Railway had a three-way switch; the old structure in this photo shelters only a motor car. The 5-spot, with old number 311 showing through the weathered paint, was purchased from the Houston & Texas Central Railway about 1929.

Ralph Carlson; courtesy Mack Tomme.



Linn H. Westcott.

Near the mouth of the Rio Grande.

The small inset map shows the general layout of railroads in the southernmost part of Texas and indicates by shading the territory included in the large scale map of the Port Isabel & Rio Grande Valley Railroad. Brownsville is an important import-export trading center between Mexico and the United States, and San Benito is at the heart of a rich Rio Grande Valley agricultural area served by the Missouri Pacific spiderweb and the Southern Pacific. Notice how Celaya's crow changed its course.

in. When the Port Isabel & Rio Grande Valley ceased to exist last New Year's Day, the MoPac took over. The central portion of the trackage was ripped out, but the Port Isabel end, 9.5 miles of it, was connected by 3.6 miles of new construction to the San Benito-Abney branch of the Missouri Pacific, and the 6.4 miles of track from the center of Brownsville to the Brownsville Navigation District, serving dock, transfer sheds and warehouses, was connected to the Missouri Pacific in Brownsville.

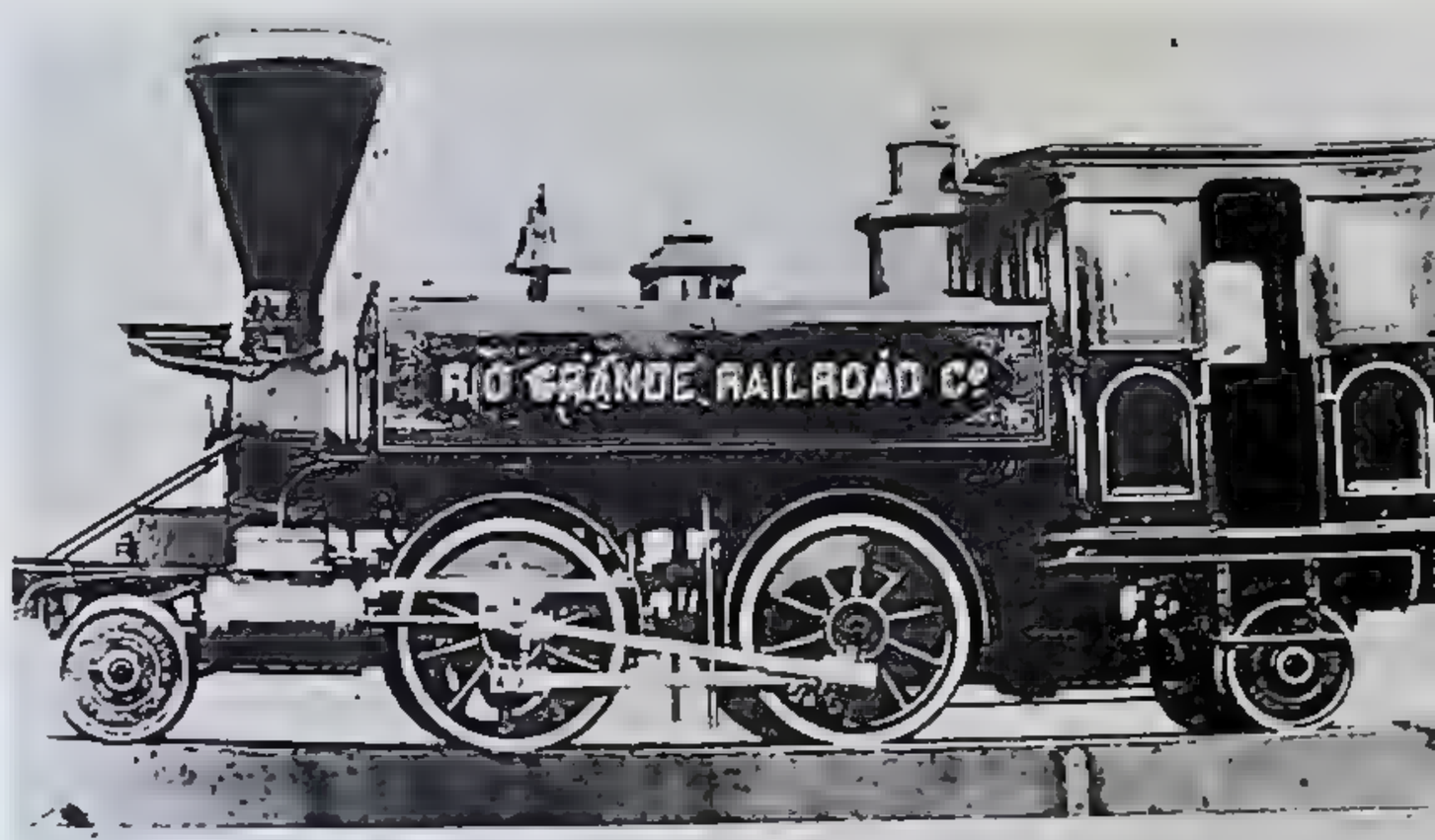
The motive power roster included eight locomotives, starting with the No. 1 shown on the next page. Data on No. 2 is not available, but No. 3 was a conventional 4-4-0 built by Baldwin in 1879. It saw continual service until 1917, and was sold for scrap March 1, 1937. After the 1 and 3 went out of service a home-built Packard motor served as power until the change to standard gauge in 1925. Even before the No. 1 a small dummy engine with upright boiler was used for construction work.

With the standard gauge in 1925 came the first of five Ten-Wheelers. This was leased from Sugarland Industries and returned to them in 1929 after the purchase of second-hand Houston & Texas Central No. 311, a Cooke-built 4-6-0 which became Port Isabel & Rio Grande No. 5. The 5-spot was good for five years of service, and was then replaced by No. 6, purchased from the Missouri Pacific in 1934 and blown up due to low water in 1936. Nos. 7 and 8 were both purchased from the Texas & New Orleans. The last three engines all used the same tender, which indicates how they succeeded each other in doing all the road service except for passengers carried in the homemade gas car. No. 7 was originally

built by Cooke in 1892 and No. 8 by Schenectady in 1891.

It was the 8-spot which pulled the last train into Brownsville, a train of five tank cars and caboose. The next day, January 2, 1941, the rails were parted and the Port Isabel & Rio Grande ceased to exist as such.

Thus the worn-out little railroad which Engineer Field built so straight and level across the tide flats, the worn-out little railroad which worked so hard back in the seventies, now becomes a useful and integral part of a large transportation system. There is a reasonable expectation that with facilities of the larger company, 1700 carloads yearly will be handled between points in the Rio Grande Valley and Port Isabel, 1800 carloads annually will be handled between the Port of Brownsville and the Valley, and 800 carloads a year will be handled between the Port of Brownsville and Mexico. Twelve cars a day, where once four narrow gauge engines tailed 'round the clock! But 12 cars none the less, 12 cars for Missouri Pacific line-haul, and the iron still shines bright across the tide flats, although not as straight as the crow flies.



Mack Tomme collection.

Courtesy Missouri Pacific Lines Magaz

Life of No. 1.

The first engine of the new Rio Grande Valley Railroad in 1871 was a little Baldwin 2-4-2 tanker, gaily lettered and decorated in the style of the times. She was later rebuilt into a tender engine, as in the second photo, ran until 1917, and now rests in peace at Chamber of Commerce Park, Brownsville.

Courtesy C&O Magazine.

DC-1, daylight sister of the *Overnighter,* bends out of St. Joseph.

Pere Marquette's Detroit-Chicago time freight *DC*-1, westbound, is shown behind Berkshire type locomotive 1205 climbing the two-mile grade just west of St. Joseph, Mich. The first 1¼ miles of grade is .75 per cent; the remainder is .60 per cent. The double track at this point is laid with 112-pound rail on washed gravel ballast and with elastic spikes. The 15 PM Berkshire locos carry 245 pounds boiler pressure, have 26″ x 34″ cylinders, tractive effort of 69,350 pounds or 83,750 pounds with booster, and were built in 1937 by Lima. Speed limit for freight trains is 50 miles per hour.

The Overnighter

★ Pere Marquette fast freight service keeps high polish on the Detroit-Chicago rails.

By Ellsworth Knapp.

Illustrated by T. B. O'Meara, except as noted.

GREAT drops of rain smash against the sliding window of Pere Marquette 1211's cab, making silver streaks across the glass, but rain has no effect on the giant Berkshire as she roars west through the rolling countryside of western Michigan and approaches Chicago, the rhythmic barking of her exhaust going out to mingle with other sounds of the night.

The headlight, boring a tunnel through the dark, plays upon a white whistle post, and Engineer John Richart, his eyes scanning the rails in the headlight's beam, reaches for the cord. "Whooooo, whooooo, whoo, whooo-o-o," is the 1211's warning as the headlights of highway traffic wait for the heavy locomotive, 35 freight cars, and red caboose to thunder over the crossing.

This is No. 41, the *Overnighter*, leader of Pere Marquette's fleet of fast freights between Detroit and Chicago. It has no time to dawdle along the way, for it leaves Detroit's Boat Yard at 5:45 p. m. and is due in Chicago at 3 a. m. In the other direction No. 40 leaves Chicago at 7 p. m. and is due in Detroit at 5:30 a. m.

Now nearly three years old, these redball freights are earning a reputation among important shippers. They are typical of something which has been happening to railroad freight service, something even more sensational but less known than the speedup of passenger trains. No. 40's and No. 41's name, the *Overnighter*, gets right at the nub of the change, since most freight moves by night and the main object of the speedup has been to extend the number of cities between which closing to opening time schedules are in effect.

There is a certain shipping pleasure in knowing that one can take a package to the PM's Detroit freight house as late as 4 p. m. and have it delivered in Chicago early the next morning. In Chicago, l.c.l. (less than carload) freight received as late as 4:30 p. m. is delivered in Detroit early the following day. And this service has all the reliability of other rail schedules, through cold or sleet or snow.

For an average month of 24 trains (no *Overnighter* on Sundays), No. 41's running time between Detroit and Chicago was 37.6 miles an hour including intermediate stops. A performance report shows an average of 33 cars handled each trip between Detroit and Grand Rapids division point and 43 between Grand Rapids and Chicago. Delays averaged only 20 minutes on the first half of the run, and 26 minutes on the second half. Approximately the same figures stand for No. 40.

Makeup of the *Overnighter* at Detroit is from four principal sources: carload freight of Canadian and Eastern U. S. origin, traveling over Canadian Pacific or Pere Marquette rails and ferried over from Windsor; from National Carloading Company at Detroit; l.c.l. from the Pere Marquette's own freight house; carloads from local manufacturers.

At Lansing, Mich., No. 41 picks up an average of two cars of auto parts. Grand Rapids, a junction point, is the largest setoff and pickup point along the route. Here as many as 15 cars may be set out and as many or more picked up. End of run is at Clearing Yard in Chicago, after setouts at Rockwell Street.

Another fast freight over the same route is PM's *DC-1* (Detroit-Chicago 1). It is on a somewhat later schedule, leaving Detroit at 3:30 a. m. and arriving in Chicago at 3:15 p. m. *DC-1* handles for the most part loads of automobiles and automobile parts, supplemented by empty meat cars being returned to packers' plants in Chicago and other Midwestern points. The return of these empties requires handling as prompt as that accorded the loads.

DC-1's first stop out of Detroit is to pick up, at Plymouth, automobiles and parts from the Buick plant at Flint, usually several carloads. At Lansing it leaves auto parts for that point

and picks up cars of other kinds of auto parts for movement west. The train is due in Grand Rapids at 9:15 a.m. For a typical month *DC-1* handled a daily average of 67 loads and 22 empties between Detroit and Grand Rapids, with a tonnage of 3171.

At Grand Rapids the crew, locomotive, and caboose are changed, just as with the *Overnighters,* and cars are set out and picked up. Coal and water are taken on at New Buffalo, Mich., and cars are set out for the north and south LaCrosse Branch, which connects with several of the east and west railroads out of Chicago. Then it's on into Clearing Yard, where connections are made with Western railroads through the Belt Railway of Chicago.

The track layout traversed by these trains starts with 23 miles of double track from Boat Yard, Detroit, to Plymouth, and is then single track with double track for short distances at important cities as far as Porter, Ind., right at the bottom of Lake Michigan. At Porter the Pere Marquette leaves its own rails and runs for 18 miles over New York Cenrtal to Pine, then 10 miles over Baltimore & Ohio to South Chicago, and finally 10 miles over the Belt Railway of Chicago to Rockwell Street. Passenger trains use the tracks of the Baltimore & Ohio Chicago Terminal Railroad into Grand Central Station, the B&O's Chicago terminal.

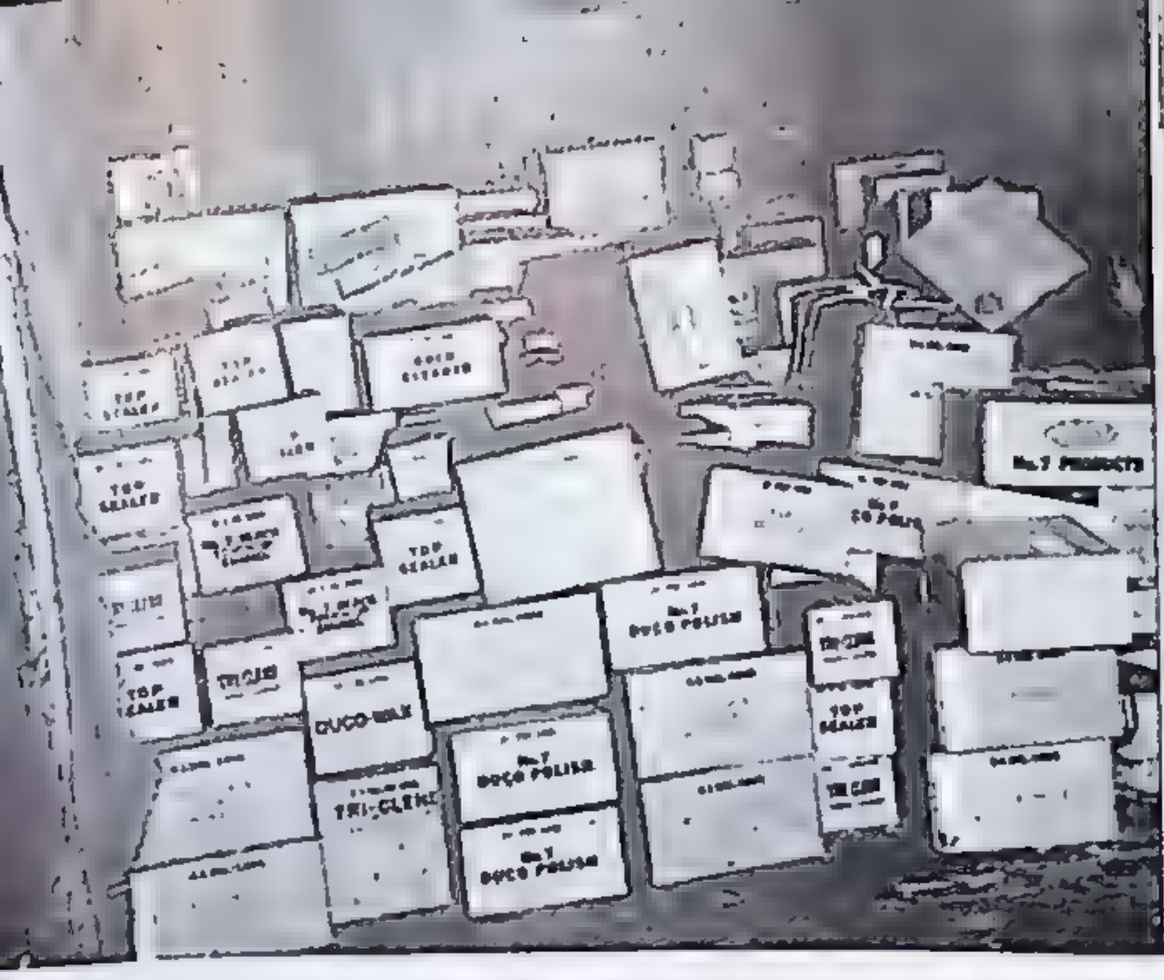
Passenger service over the Detroit-Chicago rails of the Pere Marquette is primarily local, with a through day-train each way and a number of other trains both between Detroit and Grand Rapids and between Chicago and Grand Rapids.

The *Overnighter* activity starts as merchandise cars are loaded at Detroit for Chicago and points in between.

The car ferry docks, an adjustable apron of dock track is brought to deck height, and the cars unchained.

This is Boat Yard, Detroit, where the *Overnighter* takes shape as a train and acquires an engine and a caboose.

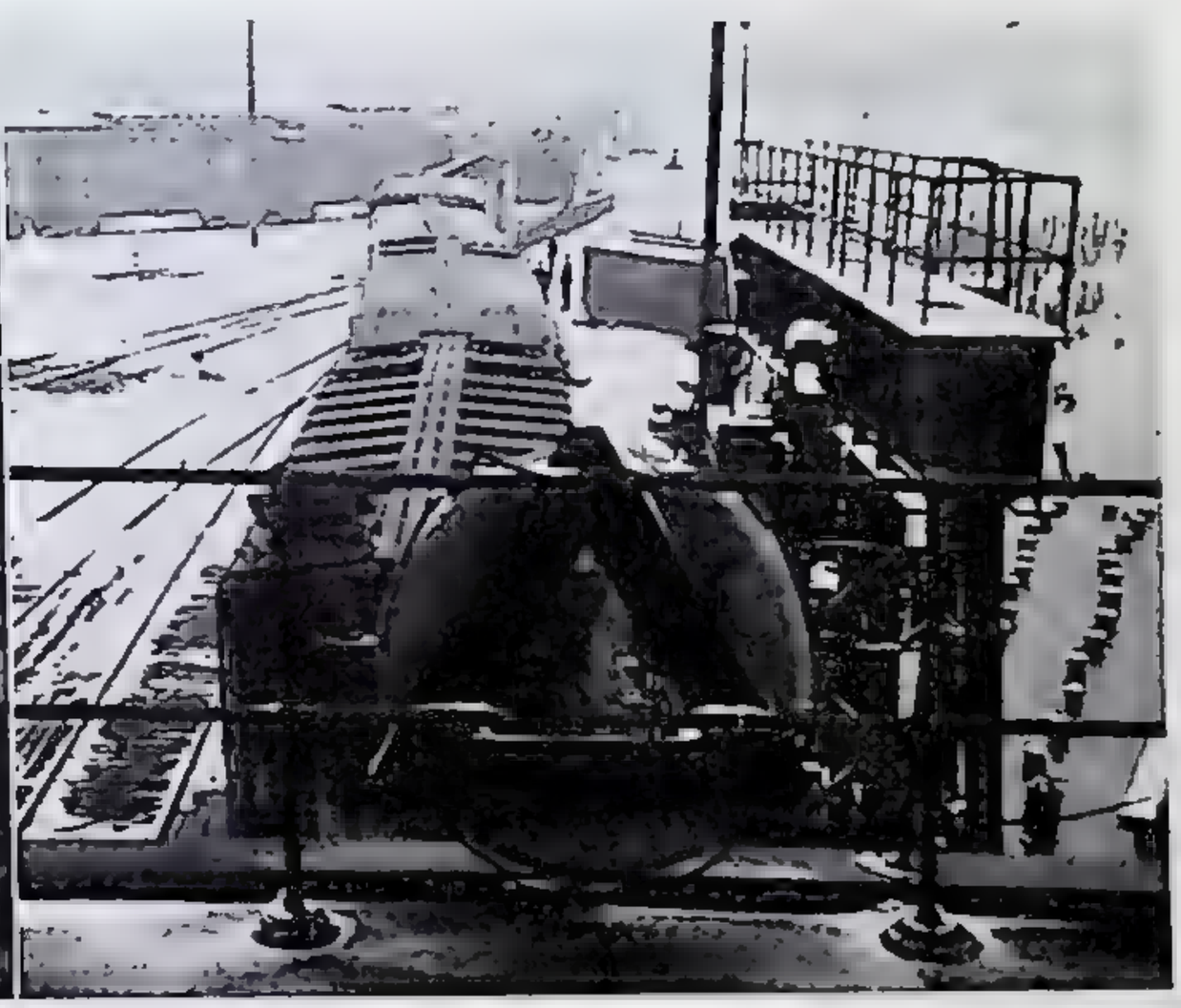
The doughty Diesel switcher, having fished these cars out of the ferry, lines them up with loaded l.c.l. cars.



A car full of less than carload freight is an interesting aggregation of goods. Here is a load, nearly all paint.

More of the *Overnighter* comes on the car ferry from Windsor, which connects with PM trackage in Canada.

The flat car is only a spacer, used so the switch engine need not run onto the boat. It has steps at both ends.



A string of carload lots is whisked off the long, open deck of the ferry and moved toward the makeup yard.

Much paper work precedes departure. Here clerks check waybills and prepare car lists which are the makeup.

Waybills are handed to conductor, who is now responsible not only for his train but for its cargo as well.

Dusk is falling as the *Overnighter*, bright red caboose and all, is ready to leave the Boat Yard at Detroit.

The big Berkshire locomotive exudes confidence as she stands with boiler percolating and air pump throbbing.

L. M. Brodbeck, Lake Odessa, Mich.

Engineer John Richart checks over running gear before taking over at Grand Rapids. The 223 tons of machinery (not counting tender) which he will jockey to Chicago is shown on display at Saginaw station when it was new.

Three men ride the cab of a freight train, the engineer on the right (see photo, page 37), and the fireman and front brakeman on the left. The cupola of the caboose is used as a lookout post to see that all is well with the train.

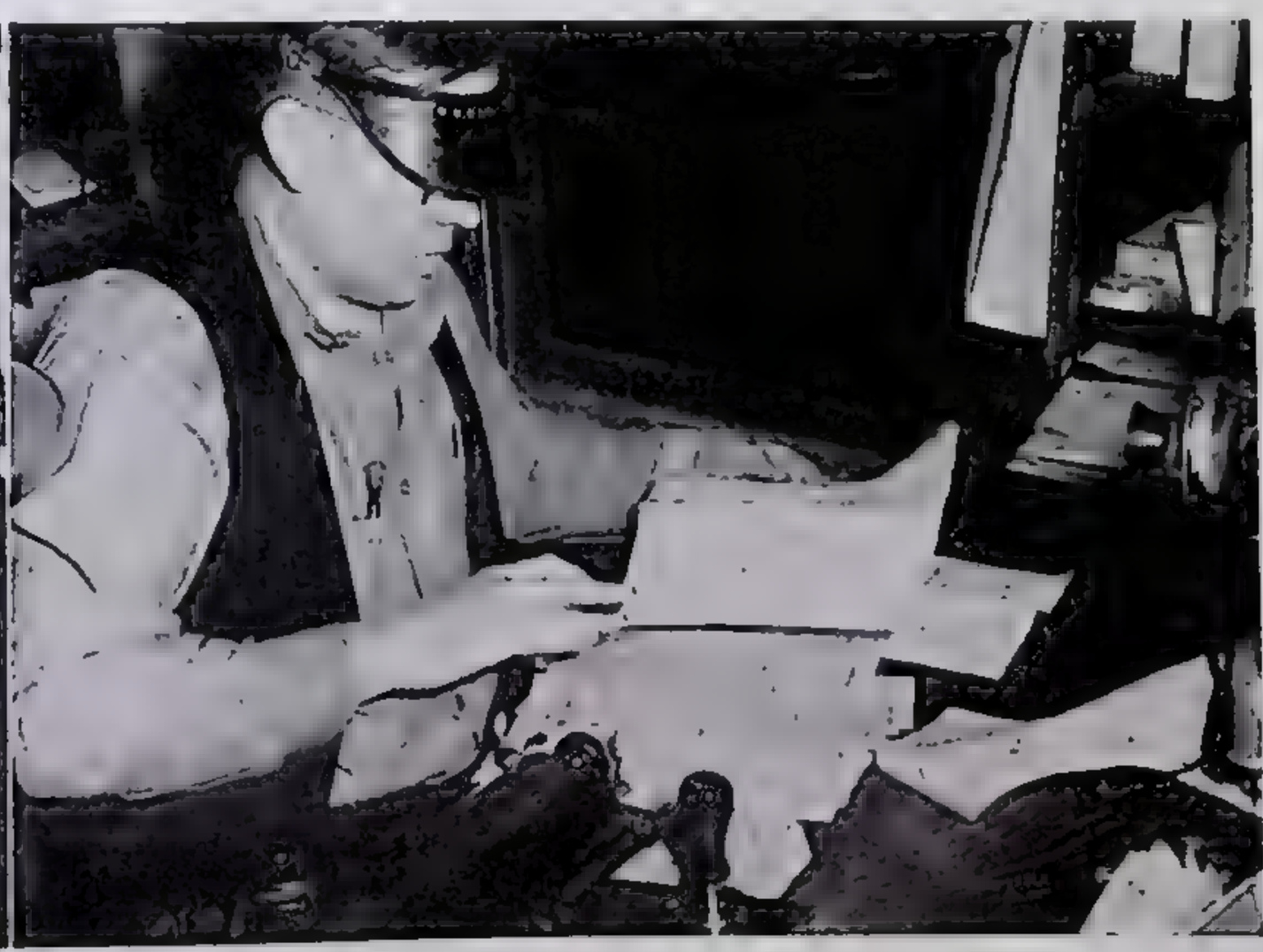
She's off! Her cargo, instead of being stowed away beneath decks, is stretched out over half a mile of rail.

During the stop at Grand Rapids, way bills are copied by Recordak and an extra set is mailed ahead to Chicago.

Brakeman Nap Larabel gives a vertical swing of his white lantern off the side of the caboose step and the

Overnighter leaves Grand Rapids. Along the way the caboose crew takes a snack with coffee hot off the stove.

Trainmaster P. K. Pierce looks over *Overnighter's* way bills on arrival at Rockwell Street in Chicago, after



which Assistant Yardmaster H. C. Wooldridge separates them. Part of the train continues on to Clearing Yard.

Alameda Belt Line

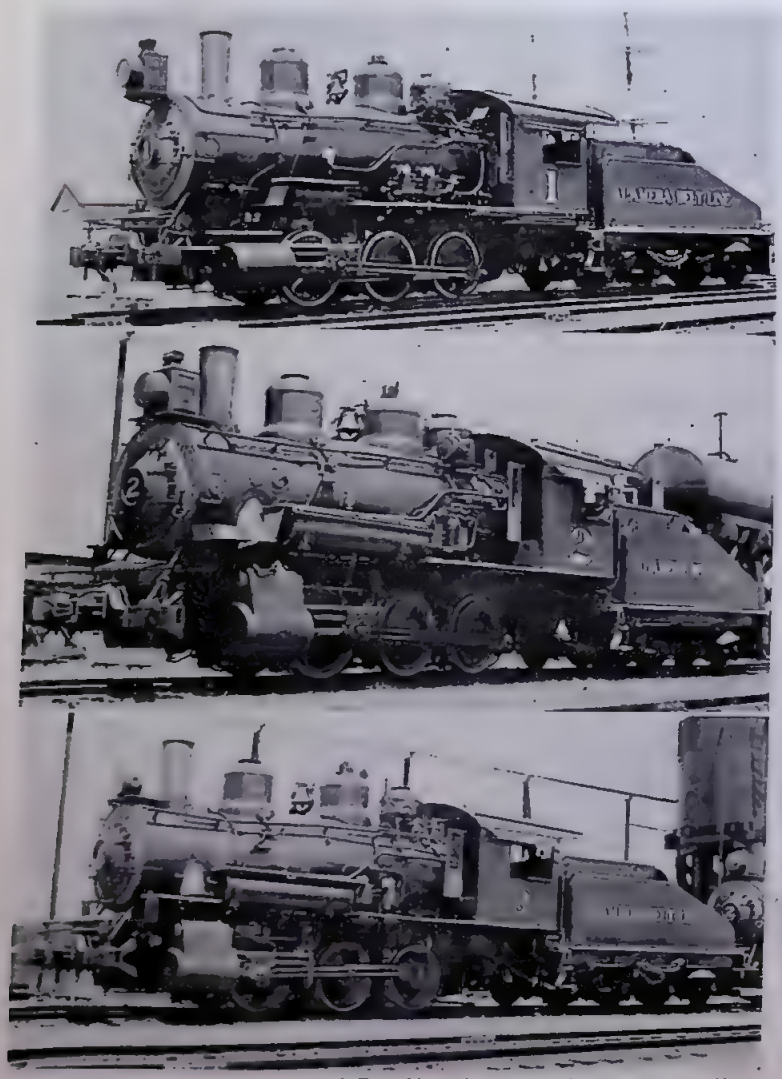
Data courtesy J. C. Hammond.

★ California's island city is important rail-water terminal.

ONE of the finest natural harbors in the world is San Francisco Bay. Since gold rush days it has grown in importance as a world port. Now the bay is surrounded by a number of important cities—San Francisco, Oakland, Richmond—and upriver to the northeast are Sacramento and Stockton. While most of the heavy shipping is carried on in crowded San Francisco at wharves that jut into the bay, the cities on the east side of the water also receive their fair share. Oakland is the largest Eastbay city, population about the same as Jersey City, but in a much more beautiful setting. To the south is the Alameda Estuary between Oakland and Alameda Island; here are most of the Eastbay shipping activities.

Paralleling the south bank of the dredged channel is the Alameda Belt Line, a switching railroad which serves important industries—Alaska Packers Corporation, California Packing Corporation, California Pottery Works, Bethlehem Steel and Ship Yards—and several U. S. Navy projects, including a large air base.

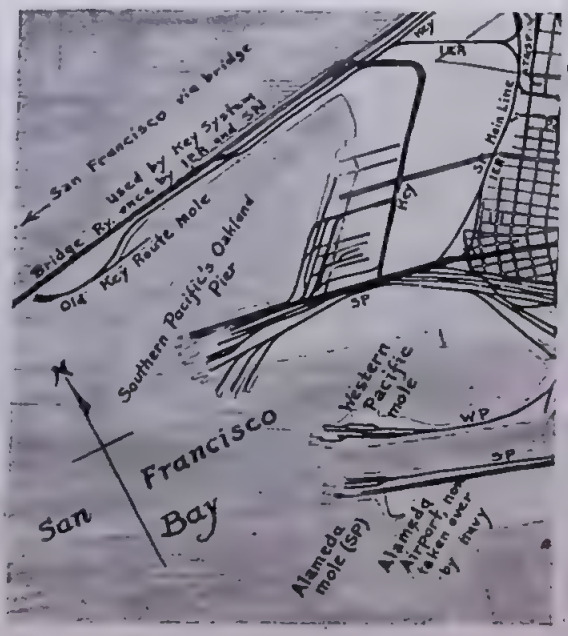
Most of these shippers are between the ABL tracks and the estuary (see map), and midway is the principle yard, offices and roundhouse for the railroad. Interchange is with the Southern Pacific on the island, and with Santa Fe and Western Pacific by ferry. SP tracks also run the length of the island but



Joseph P. Webber, 1797 Washington Ave., Bronx, N. Y.

Alameda locomotives.

These are the three ex-Santa Fe locomotives used to operate the Almeda Belt Line. No. 1 is 33 years old, the others 30. They are Baldwin-built, sold to ABL in 1930, 1930, and 1933.



are largely in the city streets; these tracks from 1911 to 1941 were electrified and used for heavy suburban passenger service connecting with San Francisco by ferry, but now are maintained in reduced mileage for freight and shop purposes only.

The Belt Line is operated by three 0-6-0 switching locomotives built in 1908 and 1911 for the Atchison, Topeka & Santa Fe by Baldwin. No. 1 was Santa Fe No. 2036, cylinders 20″ x 26″, 180 pounds pressure, with a tractive force of 31,300 pounds. It was purchased by the Belt Line in 1930 along with No. 2, ex-Santa Fe No. 2039. The two differ only slightly in characteristics but No. 1 has inside valves while No. 2 has piston valves. No. 3, ex-Santa Fe No. 2045, was purchased in 1936 and is a sister to No. 2.

Engines are kept in a small engine house near the road's main yard. Here also are additional interchange tracks with the SP, the company office, and a unique water tank with two spouts at right angles to accommodate tracks at a grade crossing.

Business is good at the California Packing Corporation, and ABL switches a continuous string of box and refrigerator cars into the plant daily. The railroad was constructed to handle the heavy shipments of the Alaska Packers. Previously switching accommodations were inconvenient and expensive for this company at the west side of Encinal Terminal for several reasons, not the least being that SP locomotives had to be brought over daily from the West Oakland shops. In 1930 the Atchison, Topeka & Santa Fe, together with the Western Pacific and the City of Alameda, formed the Belt Line and constructed the necessary trackage. Connection to the sponsor roads is by ferry just north of the double wye and company offices. In 1938 new track was built west to the naval base on man-made land to the west.

ABL rolling stock consists of four wood flat cars numbered 01 to 04. These are used to span the ferry slip apron so locomotives are not forced to move onto floating parts. Nevertheless, the company keeps in its yard a good selection of empty per diem cars to shoot to any spur that may need a few.

Alameda railroads.

Alameda, an island city about a third as big as Manhattan, has a population of about 40,000. Since it is just across the bay from San Francisco, and adjoins Oakland, Calif., it is little heard of in spite of its importance as an industrial, shipping, ship building and residential area. Alameda Belt Line, shown by heavy lines, is an exclusively-switching railroad connecting most of the important industries of the area with Southern Pacific tracks to the east. These in turn continue to Oakland. The Interurban Electric Railways (IER) once whisked passengers from the SP ferries to all parts of the bay cities. When the San Francisco Bay Bridge was built these trains ran over it until service was discontinued early in 1941. The Key System, a former competitive transit network, now handles all transbay commuters.

Linn H. Westcott.

Eastbay Railroad

★ Suburban emp
rapid transit
every district.

A

B

C

D

Top three, Fred Fellow; bottom, Vic Du Burtz.

To the railfan in the early twenties few Western cities offered more interest than could be found in Oakland, Berkeley, and Alameda, Calif. The young Western Pacific was building its clientele of shippers to help repay the Denver & Rio Grande Western for financing this last of the transcontinentals. Santa Fe was developing Richmond, to the north, into a great tidewater port. Southern Pacific went on as usual getting most of the business, principally because it was the first railroad in the territory. Espee also had a tremendous suburban electrification in operation, with over a thousand miles of track, and serving the three cities every 20 minutes all day long. Espee had a competitor in this last venture, the Key Route. Everywhere one company's lines went you'd be quite likely to find tracks of the other within two city blocks. All of these railroads, steam and electric alike, maintained ferry service to San Francisco, meeting all trains.

The cities grew, and the railroad future looked very promising, until people started driving their automobiles onto the ferries. From then on all counts were against the SP suburban system. SP had to operate full railroad crews on its trains; Key did not. SP had very heavy equipment, ran 10-car trains clanging down the streets like a fire engine, had to maintain a watchman at many crossings [*A*], operated many miles in city streets, and maintained block signals on every line. Couple this with the two-blocks-away competition and the decreasing traffic due to automobiles driven by former train commuters, and it is little wonder that the line didn't pay. In the thirties an agreement was made with Key to cut out lines that were too close together. The railroad became the Interurban Electric Railways; it still didn't pay, so the service was discontinued early this year.

The Shattuck Avenue line in Berkeley ran down what was in its day the widest street in

ing

re once had

o

E

A. R. Alter, 259 E. 6th St., Los Angeles, Calif.

the world, with six car tracks for several blocks [*B*]. Trains of many cars [*C*] would tear through the streets, and when they stopped passengers would get out on whichever side they chose.

Once there were three ways to get to Alameda. The only remaining connection [*D*] is now used by Southern Pacific switchers to reach island points and the Alameda Belt Line.

Besides the Key Route (later Key System) and the Interurban, there were city streetcar lines and the Sacramento Northern, shown here with a train in the hills to the east [*E*]. The SN is also discontinuing much of its service.

But even today there is much of interest in the region; notice the crack streamliner *Golden Gate* turning into Adeline Street, which it follows, blowing its air horn at autos and bicycles as it starts its mad dash for Los Angeles [*F*, *G*].

The only stretch of elevated trackage in the bay cities is at 16th Street Station on the SP. Electric suburbans formerly used the upper level while ferry-bound steam trains from Chicago stopped to discharge Oakland passengers [*H*] on the lower level.

Key Route operates over the Bay Bridge to 'Frisco, using streamlined rapid transit cars that are worth a ride for any man's money. It's the best skyline view on rails!

F

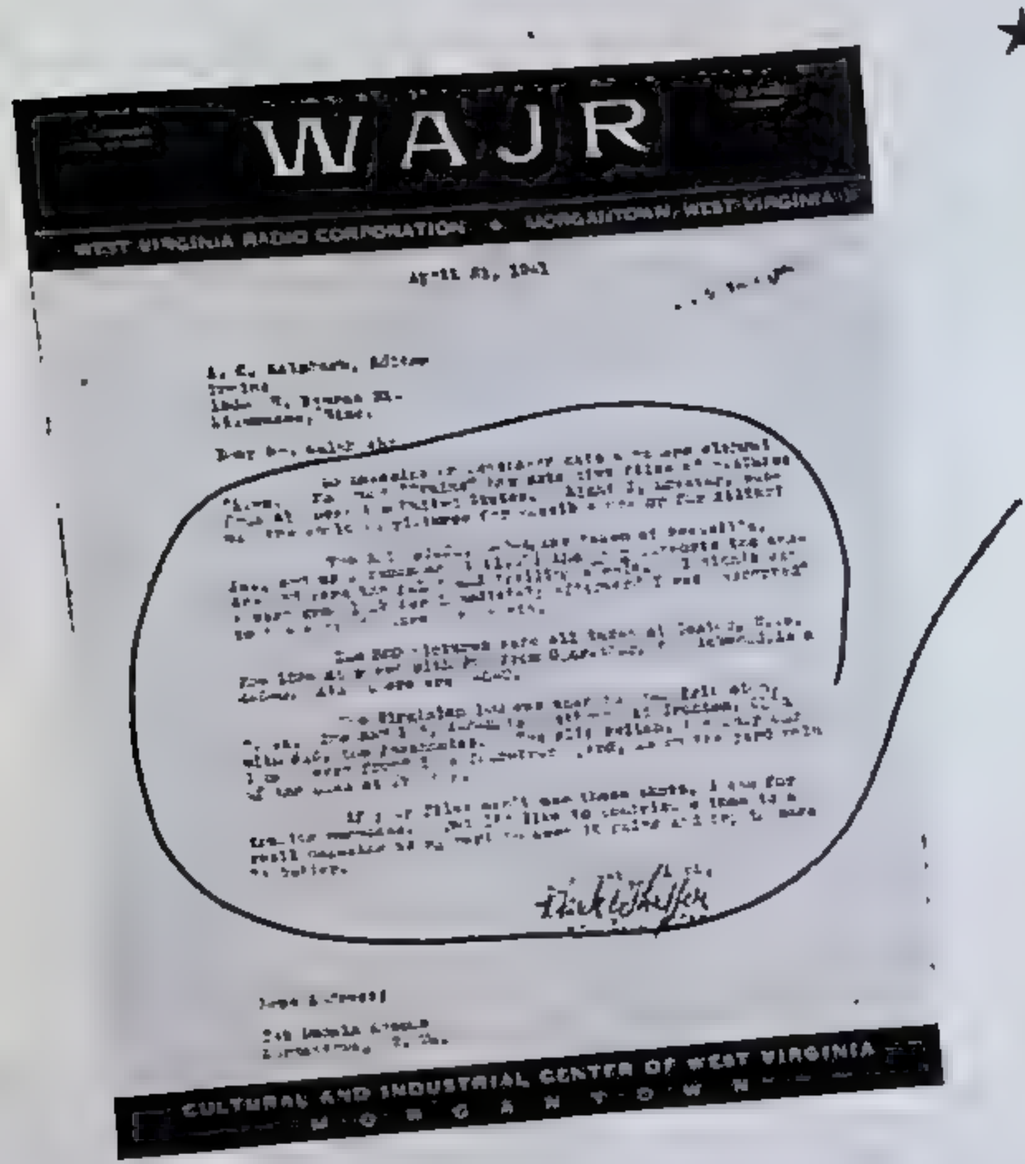
G

H

Upper two, Linn H. Westcott; bottom, Bob Gray, courtesy Fred Fellow,

From Morgantown, W. Va.

★ Typical of letters recieved daily from *Trains'* readers; radio announcer sends informative pix.


WAJR

WEST VIRGINIA RADIO CORPORATION • MORGANTOWN, WEST VIRGINIA

CULTURAL AND INDUSTRIAL CENTER OF WEST VIRGINIA

Thank you, Frank Shaffer.

No MAGAZINE or newspaper gets anywhere without files. No doubt TRAINS has extensive files of pictures from all over the United States. Might I, however, submit the enclosed pictures for possible use or for filing?

The Erie No. 3332, 2-8-4, was taken at Meadville, Pa., and as I remember it (1937) the *only* supports the engine had were the pilot and trailing wheels. I didn't get a very good look for immediately afterward I was "escorted" to the edge of company property.

The B&O pictures were all taken at Weston, W. Va. The 1386 at speed with No. 62 from Clarksburg to Richwood is a 4-6-0. All others are 2-8-0.

The Virginian 100 was snapped near Princeton, W. Va. The N&W 133, 4-8-2, is eastbound at Ironton, O., with No. 16, the *Pocahontas.* The slip switch, the only one I have ever found in a four-track yard, is on the yard main of the DT&I at Ironton.

If your files can't use these shots, I can for trading purposes. But I'd like to contribute them to a swell magazine as my part to keep it going and try to make it better.

Frank E. Shaffer.

345 Demain Ave., Morgantown, W. Va.

Every day TRAINS receives a dozen or more helpful letters like yours, and every one aids in making TRAINS a better magazine. How? When your letter arrived it was answered as soon as was possible. If it happened to be the day when we were tearing our hair to get the Sacramento Northern story, or "Colorado Railroads," or "Railroad Vacations" finished before deadline, it was answered later. The photographs you sent were filed in our big reference library together with all the data you sent and any more we could hunt up. Your photos went into the *Erie, B&O, Virginian, N&W* and *Odd Trackwork* files, already packed with hundreds of pictures contributed previously by other readers. Even the pictures that don't get published help in identifying locomotives or in providing information needed in an article.

TRAINS plans are made several months in advance; already the September issue is nearly finished, and plans for the future extend into next Summer. Readers aid in this planning by telling what articles they like best and what they most wish to read in coming issues.

TRAINS' letters come from all over the world. Besides radio announcers there are electrical engineers, postal employees, housewives, students, railroad men, executives, newspapermen, draftees, and travelers represented in our daily mail. More than a third send photos; a tenth include a story. Most asked question is "Are these pictures good enough to use?" Answer: Any railroad or geographic picture will help; those most likely to be published are in sharp focus and of course are of an interesting subject. Sometimes pictures show more detail in the black shadows when a light is shone through from the back of the print. These are too dark to bring out their full possibilities; they should be printed on less contrasty paper with a lighter exposure. Whites should look white but be just a shade darker than the paper.

Frank E. Shaffer, 345 Demain Ave., Morgantown, W. Va.

Norfolk & Western's train No. 16 taking its first puffs out of Ironton, O. Engine is Mountain type.

Close examination shows this Erie Berkshire raised on blocks with drivers removed. Lima Superpower.

Some of the heavy hauling on the Virginian is accomplished electrically with huge triple locomotives.

These Baltimore & Ohio Consolidations are used for short branch line hauling out of Weston, W. Va.

A B&O Ten-Wheeler leaves Weston with a mail-baggage combine. No passenger service at present.

Another B&O Consolidation at Weston. This is on the freight line, Clarksburg to Richwood, W. Va.

Single-slip switch at the side of a four-track yard at Ironton, O., on the Detroit, Toledo & Ironton.

A stackless Consolidation waits *sans* tender for the crematory. B&O Weston shops in the background.

Letters

★ Interesting sidelights on railroads as readers observe them.

Mount Washington Cog Road.

PLEASE allow me to correct the Mount Washington Cog Railway article in TRAINS for June. On page 30, it states that water is pumped at 1800 pounds pressure; yet, on page 32, under the picture at lower left, it speaks of a sagging iron pipe as a hose supplying water. No hose could stand the pressure at that point.

It mentions that on the downward trip the engine uses stopping steam while brakes on car and engine are set. The brakes are really used very sparingly, but steam is admitted to the cylinders with the cocks open on the principle of water brakes.

Passengers are not allowed on the platform next to the engine. Two husky brakies stand by the two brake wheels for most of the distance and they need the room.

At the bottom of page 33, the statement is made that the engines are compound. They are not. Both pairs of cylinders are run simple. The cylinders move a jack shaft at each end of the frame. These shafts are geared to the driving axles. The pair of cylinders working forward exhausts through the stack. The rear ones exhaust through the vertical pipes just in front of the cab. The lower right picture on page 32 shows this very distinctly. Some of the engines have been equipped with small piston valves; *Summit* is one of them. The D valves were particularly troublesome when steam was reversed. Valve gear, by the way, is single fixed eccentric, so engine is reversed by changing direction of steam flow.

I agree with the authors that cinders are plentiful and the engines smoke prodigiously, but there is no great pressure in the stack since the back cylinders were changed to exhaust direct. Their back pressure before was about 40 pounds and made them very inefficient.

Nobody ever mentions the gauge of this pike. It is just a little under standard, either 4′-6″ or 4′-7″.

We readers like to read the articles printed in TRAINS and we hope the information is accurate. That is the reason for this rather long epistle. So push the bar down among the oil cans and widen her out.

Carleton G. Osgood.

373 Granite St., Quincy, Mass.

[Gauge of the Mount Washington Cog Railway, 4′-7″, was indicated in the second paragraph on page 29. Reference to hose was to the top photo on page 32, not to lower left. TRAINS likes to print added information and corrections on its factual material.—*Ed.*]

Unusual Equipment.

I AM enclosing two pictures of a motor car used on the Flemingsburg & Northern Railroad. These were taken in a hurry, so I can't tell you much about the car. I don't know what the tank in front is for. You will notice where the steps are located.

I believe, after seeing these pictures, you will agree with me that you should give us an article about the lesser known roads, at least once in a while.

E. M. Neff.

1802 Lexington Ave., Springfield, O.

Flemingsburg & Northern motor car.

These are the two pictures snapped in a hurry by E. M. Neff. The F&N is six miles long, meets Louisville & Nashville trains at Flemingsburg Junction.

Hay-Day on the Railroad.

"ANYTHING can happen on a railroad excursion, and particularly if it is an electric line." As support for this statement I am sending a photo of the recent Railroad Boosters' excursion on the Pacific Electric here in Southern California.

After leaving San Bernardino (end of main line), our Orange Empire trolley trip took

us into the more interesting parts of the country—namely, the weeds. While bowling down the old Redlands line with nary a care in the world our ears were filled with the screech of brakes. There, not 25 feet ahead, stood a small hay stack on the rails. A few of the more energetic passengers and the crew removed the obstacle in quick time.

Jack Whitmeyer.

3450 Russel St., Riverside, Calif.

Bargain in Transportation.

One of the most beautiful trips in the East is also one of the cheapest. It is not listed in the timetables in any detail, or it wouldn't be necessary to mention it.

South from Buffalo, the Baltimore & Ohio (old Buffalo, Rochester & Pittsburgh) has hardly a tangent, hardly a level spot, all the way to Pittsburgh. Even near the north end there are grades and curves. Mallets haul freight trains, and six passenger cars are the limit of the light Pacifics.

Train 51 leaves Buffalo at 11:15 a.m. Meals are served at low prices in the cafe-parlor car, which can be occupied for only $1.05 from Buffalo to Pittsburgh, or 40 cents to Bradford—and even excursion coach tickets are accepted for transportation. Sundays, round trip from Buffalo to Bradford (77 miles each way) is only $1.50, good in individual-seat coaches.

Any line which offers such rates in its observation cars is deserving of note!

William C. Kessel.

92 E. Depew Ave., Buffalo, N. Y.

YOU CAN HAVE THE RAILROADS AT YOUR FINGERTIPS

All important railroad routes are easily followed on this map, and the three-dimensional relief makes it easy to see what determined the routing, how mountains are crossed and river valleys followed. It's almost as much fun to follow your favorite trains on this map as it is to actually ride them!

★ What formerly was only an appeal to the imagination is now made a reality by this out-of-the-ordinary map. It shows at a glance how our country grew; how rivers, the easiest and earliest means of travel, decided the flow of population inland; how rugged mountains stopped population's spread; how terrain in the early days presented difficult transportation problems, shaped the distribution areas which still exist today, and why certain sections were so important to the future development of our original thirteen states.

★ The Professional and Business Man will find in this map, the missing link, the portrayal of the third dimension, HEIGHT, which opens new realms of comprehension and interest.

★ The utmost thought has been given to the making of this, the *ne plus ultra* of maps . . . the most educational, practical and most beautiful ever produced. Indeed, this is the "Masterpiece of the Map-Makers' Art."

★ This unique map is the creation of Theo. W. Ohman, whose work has been acclaimed by leaders of industries, educators, and other renowned Map-Makers. He has spent many years in the development of an original process for making fine detail relief maps (actually raised), and later, through his own method, created this lithographed reproduction which appears to be actually raised. The Ohman family have been map-makers for many generations.

Map is 36" x 23", scale 1" to 85 miles. Key to the map is on reverse side, and each copy is complete with metal strips for hanging.
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The Month

★ To Omaha via Pennsy if Wabash deal is approved.

★ Purchase of the Wabash by the Pennsylvania seemed a step nearer as the New York Central withdrew its opposition before the I. C. C. The Pennsylvania at present works closely with the Wabash and uses Wabash tracks for part of its fast Chicago-Detroit route. Outright ownership of Wabash capital stock would probably result in the Wabash becoming an integral part of the Pennsylvania System, much the same as Michigan Central and Boston & Albany are parts of the New York Central System. This would fill out the Western reaches of Pennsy's map considerably, give it entrance to Omaha and Kansas City, a short route between Chicago and St. Louis, a short route from Detroit and Toledo to St. Louis and Kansas City, and a line across lower Ontario between Detroit and Buffalo (not used for passenger service). Wabash in turn owns Ann Arbor, a diagonal line across Michigan from Toledo to the upper end of Lake Michigan with connecting carferry service.

★ Despite dismal prophesies that no more steam passenger locomotives will be ordered, the Canadian Pacific is getting 20 4-6-2's, the Louisville & Nashville is inquiring for 18 to 22 steam passenger engines, and the Canadian National has ordered 35 more of its dual service 4-8-4's.

★ Will it never end? We mean the continuous parade of new locomotives westward to Southern Pacific. The road has only now obtained the first 20 of its 30 new 4-8-4's of the *Golden State* type, and is considering more 4-8-8-2 articulateds.

★ Arthur Curtiss James is dead. He was the last of a colorful line of empire builders, the men who made this country great by stringing it from end to end with railroad trackage. He was the last of the transcontinental dreamers—and doers. Successor to the heritage of James J. Hill, Collis P. Huntington, and E. H. Harriman, he was most associated with Western Pacific, in which he had large holdings and for which he was chairman of the board until 1939. It was his objective to expand Western Pacific into a transcontinental system, and in 1931, at Bieber, Calif., he drove the last spike of the north-south extension linking WP with Great Northern. He was also on the boards of CB&Q, C&S, and GN.

★ Dissenting opinions of I. C. C. commissioners often furnish interesting thoughts on railroad policy. In considering a recent abandonment case, Commissioner Splawn pointed out that because a particular branch is not making a profit is not always proper grounds for discontinuance. These little rivulets of traffic, pointed out the commissioner, feed the main railroad arteries and if abandoned would shrink main line traffic materially. In another abandonment case, that of the 16-mile Collins & Glennville, the I. C. C. found evidence of that common accounting ailment, difference of opinion in computing profit or loss. The commission found the road should be making $2760 annually, instead of a claimed loss of $8620 annually, and denied abandonment.

★ Don't miss "Yankee Ingenuity Makes a Railroad Pay," story of a comeback by the Boston & Maine, in the July issue of *Readers' Digest*.

★ The Delaware & Hudson has ordered 15 more 4-6-6-4 locomotives of the type shown on page 19.

★ Send notices of fan trips before the first of the month preceding date of issue or they cannot be included in TRAINS.

Fan Trips: July 27, from Los Angeles Union Terminal, 8 a. m., over Southern Pacific and Ventura County Railway to Port Hueneme and Ojai; return via Moorpark and Santa Susana. Fare, $2.85. Railroad Boosters, 518 Pacific Electric Building, Los Angeles.

July 27, from Grand Central Terminal, New York City, over the entire Harlem Division of NYC, a portion of the Boston & Albany, tentatively through the Hoosac Tunnel and over Hoosac Tunnel & Wilmington. Fare, approximately $3.60. Reservations with Edward A. Hansen, Railroad Enthusiasts, Box 63, Packanack Lake, N. J.

August 10, from Chicago over Chicago, Aurora & Elgin electric railroad using express motors, M. U.'s, locomotives. Central Electric Railfans' Association, 1240 Edison Building, Chicago.

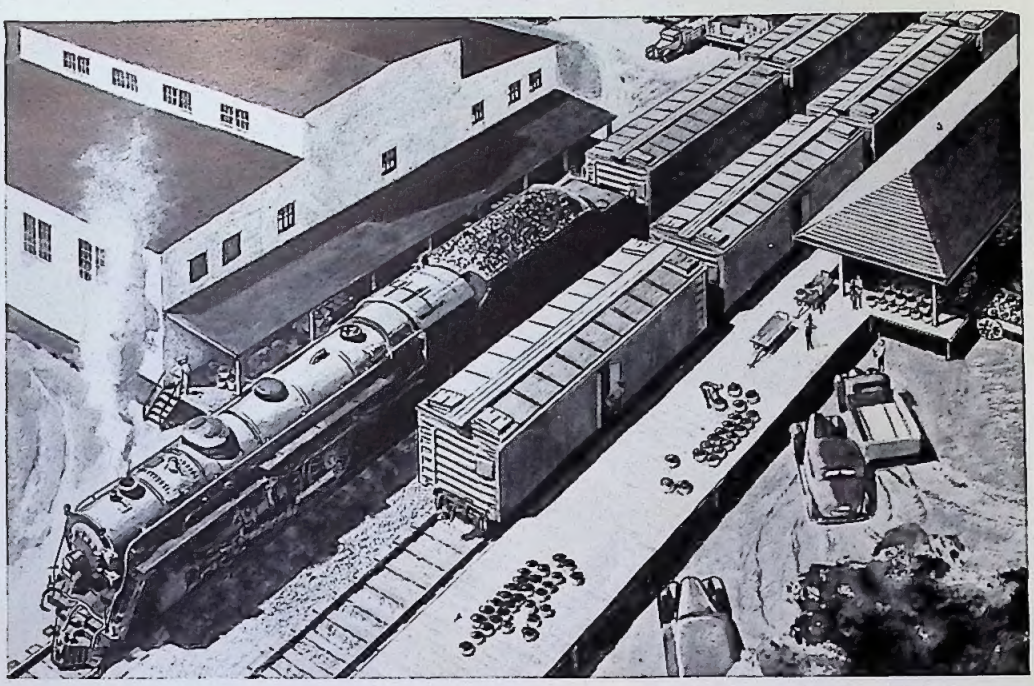
August 24, over Philadelphia Suburban electric. Fare, $1.50. Metropolitan Railfans, Irving D. Levy, 2075 Walton Avenue, Bronx, N. Y.

August 30, from Oakland, Calif., for Labor Day weekend to Reno on Southern Pacific and thence over the glamorous Virginia & Truckee [see January TRAINS] to Minden. Fare under $10. California-Nevada Railroad Historical Society, Grahame Hardy, 4657 Park Boulevard, Oakland.

August 30, from Pittsburgh over Charleroi interurban, scenic route of Pittsburgh Railways; $1.50.

August 31, from P&LE station, Pittsburgh, over B&O to Connellsville, thence over West Penn system to Uniontown, Martin, and Brownsville. Fare, $3.25. This and trip directly above are in connection with National Railway Historical Society national convention in Pittsburgh over Labor Day weekend. Reservations from Robert Zinsmeister, 3748 East Street, Pittsburgh.

August 31, a two-day trip from New York, Philadelphia, or Harrisburg (Pennsylvania Railroad) over the East Broad Top [page 4, this issue] at Mount Union, Pa., the Baltimore & Annapolis at Baltimore, and the Philadelphia Suburban at Philadelphia. Fare on small roads totals $3.25, plus special rate of not more than $9.52, perhaps less, on Pennsylvania from New York. Long Island Railroaders' Club, Herbert Du Russel, R. F. D. 1, Broadway, Bayshore, N. Y.



A Year's Work in a Week

For months they loaf in the sun—empty packing sheds beside seldom-used tracks. You wonder why they were built there among the fields or groves.

Then one day you feel life begin to stir. For miles around, long strings of refrigerator cars congregate on every siding. A regiment of pickers, graders, packers gathers from nowhere. Mountains of crates and baskets appear overnight. For in the fields another crop is ripe, and for a few brief days that obscure crossroads may be a major source of a mighty nation's supply of some particular fruit or vegetable.

Elsewhere endless fields of grain flood waiting trains with sudden Niagaras of golden harvest.

No other method of transportation could possibly provide for the swift, orderly marketing of America's crops. To take care of these seasonal shipments, the railroads maintain thousands of miles of track, special types of freight cars and endless other facilities that are used primarily for peak crop movements. Operating at all seasons over their own vast network of steel highways, the railroads link producer to consumer with a fast, dependable, low-cost, low-loss system of distribution.

No other kind of transport is big enough and flexible enough to handle the varied transportation needs of the nation's agriculture, industry and commerce.

NOW—TRAVEL ON CREDIT

America's railroads offer new, simple installment payment plan for trips and tours.

SEE YOUR LOCAL TICKET AGENT

ASSOCIATION OF AMERICAN RAILROADS, WASHINGTON, D.C.

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